

YF 02496



# PERITE CATALOGUE STANDARD STARS. 31' & 41' S. 1905'0,



ASTRONOMY LIBRARY

1907.

WESTERN AUSTRALIA.

— A —

## CATALOGUE

OF

# 420 STANDARD STARS,

MOSTLY BETWEEN 31° & 41° SOUTH DECLINATION,

FOR THE EQUINOX

1905'0,

FROM OBSERVATIONS MADE AT THE

# PERTH OBSERVATORY,

WESTERN AUSTRALIA,

UNDER THE DIRECTION OF

W. ERNEST COOKE, M.A., F.R.A.S., GOVERNMENT ASTRONOMER OF WESTERN AUSTRALIA.

PERTH:

BY AUTHORITY; FRED, WM. SIMPSON, GOVERNMENT PRINTER,

1907.

Cat. for ASTRONOMY LIBRARY add to lib

#### PERTH

#### GENERAL CATALOGUE OF STARS

FOR

#### 19050.

#### INTRODUCTION.

To the Perth Observatory, as one of the co-operating Observatories of the International Photo-Durchmusterung, have been assigned the zones 32°—40°. Owing to the absence of suitable well-determined positions which might be used as standards in the plate reductions, it has been found necessary to select some 10 or 12 stars in each plate area and observe these with the transit circle. A list has been prepared containing three stars per square degree, wherever practicable, and observations of these were commenced on 1901, October 6, with the six-inch Troughton and Simms Transit Circle.

At first the clock error was determined from the equatorial and zenith stars of the Nautical Almanac, and the nadir point from reflections of the middle thread over mercury. This method was eventually discarded as unsatisfactory, for several reasons, and it was determined to use Auwer's "Fundamental Catalog für Zonenbeobachtungen am Südhimmel" as the basis of reduction. Since, however, there was not a sufficient number of fundamental stars between 31° and 41°, the stars of the present catalogue were selected, to be used as secondary standards. It was resolved to set aside at least a year in order to obtain 10 good observations of each of these stars. The list has been constructed so that there are three or four stars per hour for each 2°, and also so that there are generally four of Auwer's Fundamentals per hour in the whole 10°. In a few instances it was found necessary to extend the limits in order to obtain the requisite number of Fundamentals. Instrumental constants (level, azimuth, mire, and nadir point) were taken before and after each two hours' catalogue work. The clock error and equator point were determined from the Fundamentals, of which from 6 to 10 have generally been taken. The nadir point observations have been used only as a check upon the steadiness of the instrument, and occasionally it was found necessary to consider the equator point as a function of the time.

This catalogue will be used in the reduction of the stars of the larger one in the same manner as Auwer's Fundamental Catalog has been used in the preparation of the

present one. That is, the stars will be observed in zones of 2°, probably two hours at a sitting. Each evening's observations will include from 6 to 10 of these Secondary Standards, from which the clock error and equator point will be computed.

An attempt will also be made to reduce the observations already taken to the same system, but it is feared that the requisite number of Standards will not always have been taken.

It is the present policy of this Observatory that both this catalogue and the larger one shall be re-observed every 10 or 12 years, taking 10 observations of each of the Standards and three of each star in larger catalogue.

A rough attempt has been made to correct the observations for magnitude equation, and to reduce them to the standard of an 8th magnitude star.

Transits have been taken over 7 vertical wires, and four microscopes have been used in the circle readings. Corrections for runs and errors of division have been applied, but no corrections have been made for proper motion.

In the case of Fundamental Stars two quantities are given, those marked A being taken from Auwer's Catalog. It should be remembered that these are reduced to the fourth magnitude.

A few alterations in the working list were made during the year, and therefore the numbers are not quite regularly consecutive. It has been thought advisable to retain the same numbers as occur in the star ledgers.

The magnitudes are taken either from Auwer's Catalog or the C.P.D., but in a few instances have been altered where the figure given in the C.P.D. was obviously inappropriate. They are not intended to be photometrically accurate.

The remarks are intended to help identify the star. The letters p. and f. (preceding and following), when in small type, refer to spaces of the order of 10 or 15 seconds of time, or less, but when printed in large type to spaces of the order of one minute of time.

The observers were Messrs. W. E. Cooke, H. M. Joscelyne, and H. B. Curlewis.

The work of reducing the observations and preparing the catalogue was performed by the latter officer, assisted by Mr. C. Nossiter.

The probable errors of a single observation, deduced from the first hundred stars, are  $\pm 0^{s}.033$  and  $\pm 0''.30$ .

3

|          |         |                        |                   |                      |                                  |                                  |                             |                        | 18          |  |                                  |                                  |                             |                  |
|----------|---------|------------------------|-------------------|----------------------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------|--|----------------------------------|----------------------------------|-----------------------------|------------------|
| No.      | Mag.    | Mean<br>Date.<br>1900+ | No.<br>of<br>Obs. | Mean R.A.<br>1905 0. | Annual<br>Precession.<br>1905'0, | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Mean<br>Dute,<br>1900+ | No. of Obs. | Mean<br>De lination,<br>1905 <sup>.</sup> 0. | Annual<br>Precession.<br>1905 0. | Secular<br>Variation.<br>1905-0. | Annual<br>Proper<br>Motion. | Remarks.         |
|          |         |                        |                   | h. m. s.             | s.                               | s.                               | 8.                          |                        |             | 0, "   | "                                | "                                | "                           |                  |
| 1        | 7.6     | 5.98                   | 10                | 0 2 17:137           | + 3.0645                         | 016                              | •••                         | 5.97                   | 11          | 31 5 26.51                                   | + 20.045                         | 01                               |                             | ·                |
| 1a       | 9.0     | 6.06                   | 11                | 0 4 18.855           | + 3.0522                         | —·022                            |                             | 6.05                   | 12          | 38 49 0.67                                   | + 20.042                         | <b>-</b> ·02                     | ***                         |                  |
| 2        | 5-6     | 6.04                   | 13                | 0 6 54.260           | + 3.0436                         | 019                              | +.0100                      | 6.03                   | 14          | 35 39 53.69                                  | + 20.037                         | — ·02                            | + .119                      |                  |
| A        |         |                        |                   | •265                 |                                  |                                  | •••                         |                        | •••         | .95  |                                  |                                  |                             |                  |
| 3        | 7.8     | 5.88                   | 11                | 0 10 5.485           | + 3.0348                         | <b>—</b> ·016                    |                             | 5.88                   | 12          | 32 40 48 40                                  | + 20.026                         | 03                               |                             | •••              |
| 4        | 8.0     | 5.98                   | 10                | 0 14 8 139           | + 3.0173                         | —·017                            |                             | 5.98                   | 10          | 33 51 8.60                                   | + 20.008                         | 04                               | •••                         | •••              |
| 5        | 8.2     | 5.88                   | 11                | 0 16 46.984          | + 3.0048                         | '017                             |                             | 5.88                   | 11          | 34 41 46 92                                  | + 19.992                         | —·04                             | ***                         | ***              |
| 6        | 8.0     | 6.43                   | 9                 | 0 19 35.807          | + 2.9891                         | —·017                            |                             | 6.43                   | 9           | 36 9 59.25                                   | + 19.973                         | —·05                             |                             | $^{\mathrm{nF}}$ |
| 7        | 2-3     | 6.17                   | 16                | 0 21 35:369          | + 2.9561                         | <b>-</b> ·022                    | +.0165                      | 6.16                   | 18          | 42 49 19 76                                  | + 19.957                         | 05                               | — ·414                      | •••              |
| A        |         | 0.00                   |                   | 352                  |                                  |                                  | 4.0120                      |                        | •••         | ·15  |                                  | •••                              | 1 .007                      | •••              |
| 8        | 5-4     | 6.03                   | 14                | 0 26 50 096          | + 2.8908                         | 027                              | +.0120                      | 6.03                   | 14          | 49 19 43 77                                  | + 19.909                         | 06                               | + .007                      | •••              |
| A        |         | F-00                   |                   | 073                  |                                  |                                  |                             |                        |             | 44.20  |                                  |                                  |                             | •••              |
| 9        | 8.0     | 5.98                   | 11                | 0 30 56.615          | + 2.9201                         | 019                              | •••                         | 5.97                   | 13          | 40 15 55 25                                  | + 19.864                         | 07                               | •••                         | ***              |
| 10       | 8.5     | 5.90                   | 9                 | 0 34 13:334          | + 2 9228                         | 016                              |                             | 5.90                   | 10          | 36 58 43.65                                  | + 19.823                         | 07                               | ***                         | •••              |
| 10a      | 9.0     | 6.06                   | 10                | 0 36 17:603          | + 2 9342                         | - 014                            |                             | 6.05                   | 12          | 33 16 21.69                                  | + 19.795                         | <u></u> − ·07                    |                             | •••              |
| 11       | 6.0     | 6.16                   | 18                | 0 39 36.527          | + 2.8868                         | —·017                            | +.0175                      | 6.14                   | 20          | 38 56 41.82                                  | + 19.748                         | 08                               | + .109                      | •••              |
| A 19     | 8.5     | 6.15                   | 11                | 0 43 15·205          |                                  |                                  | •••                         | 0.14                   | 10          | 42.43  | + 19.690                         |                                  |                             | ***              |
| 12       | 8.5     | 6.35                   | 9                 | 0 47 0.332           | + 2.8646                         | —·017<br>—·011                   | •••                         | 6.14                   | 12          | 39 40 29.72                                  | ,                                | 09                               | •••                         | ***              |
|          | 7.8     | 5.90                   | 10                | 0 49 29.884          | + 2.9057                         |                                  |                             |                        |             | 31 30 8.71                                   | + 19.626                         | 10                               |                             | sp               |
| 14<br>15 | 9.0     | 6.38                   | 10                | 0 54 6.550           | + 2.8876                         | -011                             |                             | 5.90                   | 10          | 32 51 0.93                                   | + 19.580                         | -:10                             | ***                         | •••              |
| 16       | 8.0     | 5.90                   | 11                | 0 56 51.493          | + 2.8542                         | - ·012<br>- ·012                 |                             | 6·33<br>5·90           | 11          | 34 56 13·55<br>33 52 18·78                   | + 19.490                         | —·11<br>—·11                     | •••                         |                  |
| 17       | 8.0     | 5.90                   | 11                | 0 59 31 307          | + 2.8523                         | - 012<br>- 012                   | •••                         | 5.90                   | 12<br>12    | 35 11 12:10                                  | + 19·432<br>+ 19·374             | -·11                             |                             |                  |
| 17a      | 7.5     | 6.12                   | 10                | 1 1 50.040           | + 2.8306<br>+ 2.8202             | - ·012                           | •••                         | 6.12                   | 10          | 35 18 22-21                                  | + 19 374                         | —·11                             | •••                         |                  |
| 18       | 8.5     | 5 92                   | 10                | 1 4 43.389           | + 2.7954                         | — 012<br>— ·013                  |                             | 5.92                   | 11          | 36 38 52.96                                  | + 19 321                         | — 11<br>—·12                     | •••                         |                  |
| 19       | 6.0     | 6.17                   | 15                | 1 8 22 844           | + 2.7616                         | —·013                            | +.0036                      | 6.16                   | 16          | 38 21 36.03                                  | + 19.160                         | — ·13                            | 032                         |                  |
| A        |         |                        |                   | 792                  |                                  |                                  |                             |                        |             | 35.52  | - 13 100                         |                                  | - 052                       |                  |
| 20       | 7.5     | 6.00                   | 12                | 1 13 1.325           | + 2.7482                         | _··012                           |                             | 5.99                   | 13          | 37 46 15.25                                  | + 19.037                         | _···                             |                             |                  |
| 20a      | 8.6     | 5.92                   | 10                | 1 15 19.147          | + 2.7792                         | —·010                            |                             | 5.92                   | 11          | 34 13 12-23                                  | + 18.973                         | —·14                             |                             |                  |
| 21       | 6.0     | 6.22                   | 16                | 1 19 5.690           | + 2.7961                         | 008                              | <b>-</b> ∙0050              | 6.20                   | 17          | 31 26 26 56                                  | + 18.864                         | —·15                             | 070                         |                  |
| A        |         |                        |                   | .675                 |                                  |                                  |                             |                        |             | .53  |                                  |                                  |                             |                  |
| 22       | 8.0     | 6.28                   | 11                | 1 23 27:191          | + 2.6783                         | —·011                            |                             | 6.25                   | 10          | 39 38 3.83                                   | + 18.732                         | —·14                             |                             |                  |
| 23       | 8.4     | 6.32                   | 10                | 1 27 38.100          | + 2.7374                         | 008                              |                             | 6.32                   | 10          | 33 54 19-15                                  | + 18.598                         | —·16                             |                             |                  |
| 24       | 8.3     | 6.31                   | 10                | 1 29 29.709          | + 2.6396                         | —·010                            |                             | 6.31                   | 10          | 40 23 53.76                                  | + 18.537                         | —·15                             |                             |                  |
| 25       | 7.6     | 5.94                   | 10                | 1 34 19:219          | + 2.7300                         | <b>—</b> ·007                    |                             | 5.94                   | 10          | 32 39 7.20                                   | + 18:372                         | 17                               |                             |                  |
| 23       | 6.0     | 6.14                   | 14                | 1 37 51.695          | + 2.6507                         | 008                              | 0060                        | 6.14                   | 14          | 37 18 41 33                                  | + 18:246                         | —·17                             | 028                         |                  |
| A        |         |                        |                   | •693                 |                                  |                                  |                             |                        |             | 12   |                                  |                                  |                             |                  |
| 27       | 6.8     | 6.02                   | 13                | 1 40 22.548          | + 2.6772                         | <b>— ·007</b>                    |                             | 6.02                   | 13          | 34 53 58.20                                  | + 18.154                         | —·17                             | •••                         |                  |
| 27a      | 8.5     | 5.95                   | 9                 | 1 42 36.090          | + 2.5799                         | —·008                            |                             | 5.95                   | 10          | 40 25 8.99                                   | + 18.070                         | <b>— ·17</b>                     |                             |                  |
| 28       | 8.5     | 5.95                   | 11                | 1 45 48 035          | + 2.6399                         | —·007                            |                             | 5.95                   | 11          | 36 0 34.29                                   | + 17:948                         | 18                               |                             | f                |
| 29       | 5.0     | 5.95                   | 12                | 1 49 50.223          | + 2.4171                         | 009                              | - 0097                      | 5.95                   | 12          | 46 46 3.63                                   | + 17.788                         | —·17                             | —·106                       |                  |
| A        | • • • • |                        |                   | .271                 |                                  |                                  |                             |                        |             | 4.52   |                                  |                                  |                             | *                |
| 30       | 8.5     | 6.12                   | 11                | 1 53 47:339          | + 2.6172                         | 006                              |                             | 6.12                   | 11          | 35 34 23.40                                  | + 17.626                         | —·19                             |                             |                  |
| 31       | 8.3     | 5.95                   | 11                | 1 57 51:066          | + 2.5354                         | _ 006                            |                             | 5.95                   | 10          | 39 15 17.00                                  | + 17.454                         | - 19                             |                             |                  |
| 32       | 7.5     | 5 96                   | 11                | 2 2 16.845           | + 2.5024                         | 006                              |                             | 5.96                   | 11          | 39 59 30 38                                  | + 17.260                         | - 19                             | •••                         |                  |
| 33       | 8.8     | 5.96                   | 9                 | 2 5 31.890           | + 2.5238                         | 005                              |                             | 5.96                   | 10          | 38 15 7.51                                   | + 17.113                         | —·20                             |                             |                  |
| 34       | 5.2     | 6.10                   | 13                | 2 8 43.449           | + 2.6420                         | 003                              | 0007                        | 6.10                   | 13          | 31 10 9.61                                   | + 16.967                         | —·21                             | 011                         |                  |
| A        | •••     |                        |                   | •439                 |                                  |                                  |                             |                        |             | .79  |                                  |                                  |                             |                  |
| 35       | 8.0     | 6.13                   | 11                | 2 11 25.647          | + 2 5796                         | —·004                            | ***                         | 6.13                   | 11          | 34 12 23.21                                  | + 16.839                         | —·21                             | •••                         |                  |
| 36       | 8.0     | 6.13                   | 11                | 2 15 38.772          | + 2.5962                         | 003                              | •••                         | 6.13                   | 11          | 32 34 12.73                                  | + 16.636                         | —·22                             |                             |                  |
| -        | 1       | •                      |                   |                      | ,                                |                                  | 1                           |                        |             |  |                                  | 1                                |                             |                  |

4

| No.      | Mag.       | Mean<br>Date.<br>1900+ | No. of Obs. | Meau R.A.<br>1905-0.     | Annual<br>Precession<br>1905-0, | Secular<br>Variation,<br>1905.0. | Aunual<br>Proper<br>Motion. | Mcan<br>Date,<br>1900+ | No. of Obs. | Mea<br>Declina<br>1905 | tion.          | Annual<br>Precession.<br>1905'0. | Secular<br>Variation,<br>1905.0. | Annual<br>Proper<br>Motion. | Remarks. |
|----------|------------|------------------------|-------------|--------------------------|---------------------------------|----------------------------------|-----------------------------|------------------------|-------------|------------------------|----------------|----------------------------------|----------------------------------|-----------------------------|----------|
| 1.3 5    | = 1        |                        |             | h. m. s.                 | 8.                              | 8.                               | 8.                          |                        |             | 0,                     | "              | "                                | "                                | "                           | <b>V</b> |
| 37       | 8.0        | 5.96                   | 10          | 2 18 16.42               |                                 | 003                              |                             | 5 96                   | 10          | 33 23                  | 6.15           | + 16.507                         | —·22                             |                             |          |
| 38       | 8.3        | 5.96                   | 10          | 2 21 50.48               |                                 | - 004                            |                             | 5.96                   | 10          | 37 43                  | 26.47          | + 16.328                         | —·21                             | •••                         | sf       |
| 39       | 7·5<br>6·0 | 5·96<br>5·96           | 10          | 2 25 25 60<br>2 29 9 31  |                                 | - ·003<br>- ·002                 |                             | 5.96                   | 10          | 36 21<br>35 4          | 52·07<br>3·88  | + 16:144                         | — ·22<br>— ·23                   |                             | •••      |
| 40       |            |                        |             | 2 29 9 31                |                                 |                                  |                             |                        |             | 99 4                   | *84            | + 15.949                         |                                  | 036                         | •••      |
| A 41     | 8.0        | 5.97                   | 10          | 2 32 30.81               |                                 | 003                              |                             | 5.97                   | 10          | 39 8                   | 36.82          | + 15.769                         | -··22                            |                             |          |
| 42       | 4.0        | 5.98                   | 11          | 2 36 55.06               |                                 | - 002                            | + .0075                     | 5 98                   | 11          | 40 15                  | 42.08          | + 15.528                         | _·22                             | 030                         |          |
| A        |            |                        |             | 54.98                    |                                 |                                  |                             |                        |             |                        | .23            |                                  |                                  |                             |          |
| 420      | 7.7        | 5.98                   | 9           | 2 39 28:14               |                                 | 002                              |                             | 5.98                   | 9           | 34 29                  | 40.40          | + 15:386                         | <b>— ·24</b>                     |                             |          |
| 43       | 7.5        | 5.98                   | 10          | 2 41 53.30               | + 2.3810                        | 002                              |                             | 5.98                   | 10          | 38 33                  | 53.60          | + 15.250                         | <b>— ·23</b>                     | ***                         |          |
| 44       | 4.5        | 5.98                   | 10          | 2 45 6.86                | + 2.5042                        | 000                              | + .0060                     | 5.98                   | 10          | 32 48                  | 16.69          | + 15.065                         | <b>—·2</b> 5                     | + .155                      |          |
| A        |            | •••                    |             | *85                      | 3                               |                                  |                             |                        | •••         |                        | .82            | ***                              | •••                              |                             |          |
| 45       | 6.9        | 5.98                   | 9           | 2 47 54.85               | + 2.5310                        | 000                              |                             | 5.98                   | 9           | 31 12                  | 27.62          | + 14.902                         | <b>— ·25</b>                     |                             |          |
| 46       | 7.1        | 5.98                   | 10          | 2 50 55.44               | + 2.4630                        | 001                              |                             | 5.98                   | 10          | 33 54                  | 39.09          | + 14.725                         | <b>— ·25</b>                     |                             |          |
| 47       | 3 0        | 5.99                   | 10          | 2 54 39:51               | + 2.2793                        | 000                              | 0069                        | 5.99                   | 10          | 40 41                  | 6.38           | + 14.501                         | <b>— ·24</b>                     | + '024                      |          |
| A        |            | • • •                  |             | .47                      |                                 |                                  | •••                         |                        | •••         |                        | .28            | •••                              | •••                              |                             |          |
| 47a      | 9.0        | 5.99                   | 10          | 2 57 50 10               |                                 | 000                              |                             | 5.99                   | 10          | 38 30                  | 2.11           | + 14:308                         | —·25                             |                             |          |
| 49       | 8.8        | 6.00                   | 10          | 3 4 2.50                 |                                 | 000                              | •••                         | 6.00                   | 9           | 36 8                   | 22.50          | + 13 923                         | — ·25                            | •••                         | •••      |
| 50       | 8.5        | 6.00                   | 10          | 3 7 43 15                |                                 | 000                              |                             | 6.00                   | 10          | 38 22                  | 38.71          | + 13.689                         | —·25                             |                             |          |
| 51       | 6.5        | 6.00                   | 10          | 3 10 55.92               |                                 | + .001                           | + 0016                      | 6.00                   | 10          | 35 54                  | 38.49          | + 13.483                         | —·26                             | + .025                      |          |
| A        |            |                        |             | .92                      |                                 |                                  |                             |                        |             | 00.10                  | •53            | 1.10.000                         | .00                              | •••                         |          |
| 52       | 8.0        | 6.00                   | 11          | 3 14 6·29<br>3 17 21·49  |                                 | + .001                           |                             | 6.00                   | 11          | 39 18                  | 34.25          | + 13.276                         | 25                               | ***                         |          |
| 53       | 7·5<br>7·5 | 6.00                   | 11          | 3 17 21·49<br>3 20 30·87 |                                 | + .001                           |                             | 6.00                   | 11          | 37 47                  | 28·58<br>56·55 | + 13·062<br>+ 12·851             | - ·26<br>- ·27                   | •••                         |          |
| 54<br>55 | 7.6        | 6.00                   | 10          | 3 25 9.07                |                                 | + .001                           |                             | 6.00                   | 10          | 33 58                  | 57.58          | + 12:537                         | - ·27                            |                             |          |
| 56       | 8.8        | 6.00                   | 11          | 3 28 36.73               |                                 | + .002                           |                             | 6.00                   | 11          | 33 49                  | 14.62          | + 12.299                         | - 27                             |                             | nf       |
| 56a      | 7.0        | 6.00                   | 10          | 3 30 49.04               |                                 | + .002                           |                             | 6.00                   | 10          | 35 8                   | 54.48          | + 12.146                         | 27                               |                             | sf       |
| 57       | 5.0        | 6.00                   | 11          | 3 33 41.04               |                                 | + .002                           | 0018                        | 6.00                   | 11          | 40 35                  | 9.68           | + 11.946                         | <b>— ·26</b>                     | 027                         |          |
| A        |            |                        |             | •09                      |                                 |                                  |                             |                        |             |                        | .75            |                                  |                                  | •••                         |          |
| 58       | 5.0        | 6.00                   | 12          | 3 38 28.19               |                                 | + .002                           | 0007                        | 6.00                   | 12          | 32 14                  | 29.41          | + 11.608                         | - 29                             | + .004                      |          |
| A        |            |                        |             | .16                      | 7                               |                                  | •••                         |                        |             |                        | .94            |                                  |                                  |                             |          |
| 59       | 8.8        | 6.01                   | 9           | 3 41 16.61               | + 2.1925                        | + .002                           |                             | 6.01                   | 9           | 38 41                  | 16.88          | + 11.407                         | <b>— ·27</b>                     |                             | sf of 3  |
| 60       | 4.0        | 6.02                   | 11          | 3 45 53.87               | 6 + 2.2485                      | + .003                           | _ 0041                      | 6.02                   | 12          | 36 29                  | 15.74          | + 11.071                         | <b>— '28</b>                     | 055                         |          |
| A        |            | •••                    | •••         | -93                      | 7                               | 2                                |                             |                        | ***         |                        | .82            |                                  | •••                              | •••                         |          |
| 61       | 5.2        | 6.02                   | 10          | 3 50 1.71                | 7 + 2.2828                      | + .002                           |                             | 6.02                   | 11          | 35 0                   | 46.76          | + 10.768                         | 30                               |                             |          |
| 62       | 7.5        | 6.02                   | 9           | 3 53 5.25                |                                 |                                  | •••                         | 6.02                   | 10          |                        | 13.75          | + 10.542                         | —·27                             |                             |          |
| 63       | 9.0        | 6.02                   | 9           | 3 56 16.45               |                                 |                                  |                             | 6.02                   | 10          | 40 9                   | 19.15          | + 10.304                         | <b>— ·27</b>                     | •••                         |          |
| 64       | 8.5        | 6.02                   | 9           | 3 59 9.53                |                                 | 1                                |                             | 6.02                   | 10          | 38 39                  | 4.28           | + 10.087                         | 28                               |                             |          |
| 65       | 8.4        | 6.03                   | 9           | 4 2 59.85                |                                 |                                  |                             | 6.03                   | 10          |                        | 27.40          | + 9.795                          | 30                               |                             |          |
| 66       | 8.4        | 6.03                   | 9           | 4 5 55.76                |                                 |                                  |                             | 6.03                   | 9           | 33 13                  |                | + 9.570                          | —·29                             |                             | •••      |
| 67       | 4.0        | 6 03                   | 10          | 4 10 51.14               |                                 | + .004                           | + .0020                     | 6.03                   | 11          | 42 31                  | 42.67          | + 9.190                          | 26                               | — ·221                      |          |
| A        | 9.4        | 0.01                   | 11          | 14 17 17 0               |                                 | 1,000                            |                             | 6:01                   | 10          | 24                     | '31            | + 8.024                          | — ·30                            | 014                         | •••      |
| 68       | 3-4        | 6.04                   | 11          | 4 14 17:94               |                                 |                                  | .0035                       | 6.04                   | 12          | 34 1                   | 48.15          | +8.931                           |                                  |                             | ***      |
| A<br>69  | 8.6        | 6.03                   | 11          | 4 17 26:01               |                                 | + .033                           |                             | 6.03                   | 11          | 31 25                  | 5.98           | + 8.675                          | —·31                             | ***                         |          |
| 70       | 4.0        | 6.04                   | 12          | 4 20 28:04               |                                 |                                  | + .0037                     | 6.04                   | 12          |                        | 14.04          | +8.435                           | - 30                             | + .050                      |          |
| A        | 1          |                        | 1           | 20 28 04                 |                                 | 7 003                            |                             |                        |             | 07.13                  | 13.76          | ***                              |                                  |                             |          |
| 71       | 9.0        | 6.01                   | 10          | 4 23 47.66               |                                 |                                  |                             | 6.04                   | 10          | 37 48                  | 51.37          | + 8.169                          | —· <b>2</b> 8                    |                             |          |
| 72       | 8.0        | 6.04                   | 10          | 4 27 47.86               |                                 |                                  |                             | 6.04                   | 10          | 35 58                  | 38.14          | + 7.849                          | 29                               |                             | sf       |
| 73       | 7.5        | 604                    |             | 4 31 12:15               |                                 |                                  |                             | 6.04                   | 10          | 35 52                  | 53.76          |                                  | 30                               |                             | вр       |
|          |            |                        |             | ,                        | 1                               |                                  | 1                           | 1                      | 1           |                        |                |                                  |                                  | 1                           | 1        |

5

| No.     | Mag.       | Mean<br>Date.<br>1900+ | No. of Obs. | Mean R.A.<br>1905 0.       | Annual<br>Precession,<br>1905.0. | Secular<br>Variation.<br>1905.0, | Annual<br>Proper<br>Motion. | Mean<br>Date.<br>1900+ | No.<br>of<br>Obs. | Mean<br>Declination.<br>1905-0. | Annual<br>Precessiou.<br>1905.0. | Secular<br>Variation.<br>1905.0, | Annual<br>Proper<br>Motion. | Remarks. |
|---------|------------|------------------------|-------------|----------------------------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------------|---------------------------------|----------------------------------|----------------------------------|-----------------------------|----------|
|         |            |                        |             | )<br>                      |                                  |                                  |                             |                        |                   | 0, "                            | "                                | "                                | "                           |          |
| 74      | 9.0        | 6.04                   | 10          | h. m. s.<br>4 34 33 960    | + 2·0229                         | s.<br>+ .004                     | 8.                          | 6.04                   | 10                | 40 8 30.29                      | + 7.299                          | <b>2</b> 8                       |                             |          |
| 75      | 5-4        | 6.04                   | 11          | 4 37 29 983                | + 1.9445                         | + .004                           | <b>— </b> ∙0146             | 6.04                   | 11                | 42 2 41.50                      | + 7.061                          | —·27                             | 083                         |          |
| A       |            |                        |             | .987                       | •••                              |                                  |                             |                        | •••               | -66                             | •••                              |                                  |                             |          |
| 76      | 7.5        | 6.02                   | 10          | 4 43 2.428                 | + 2.0766                         | + .003                           |                             | 6.05                   | 10                | 38 17 4.19                      | + 6.606                          | —·29                             |                             |          |
| 77      | 8.6        | 6.05                   | 9           | 4 47 16.803                | + 2.0198                         | + .004                           |                             | 6.05                   | 10                | 39 39 47.55                     | + 6.254                          | - 28                             |                             |          |
| 78      | 8.8        | 6.06                   | 11          | 4 50 27.057                | + 2.2708                         | + .003                           |                             | 6.06                   | 11                | 32 9 21.91                      | + 5.990                          | —·32                             |                             |          |
| 79      | 8.6        | 6.06                   | 10          | 4 54 36.149                | + 2.2988                         | + .003                           |                             | 6.06                   | 10                | 31 6 16.56                      | + 5.643                          | —·32                             |                             |          |
| 80      | 8.6        | 6.06                   | 11          | 4 59 12.246                | + 2.2260                         | + .003                           |                             | 6.06                   | 11                | 33 16 51.17                     | + 5.256                          | 31                               |                             | np       |
| 81      | 8.7        | 6.07                   | 10          | 5 4 9.326                  | + 2.1939                         | + .003                           | •••                         | 6.07                   | 10                | 34 7 5.05                       | + 4.837                          | —·31                             | ***                         | ***      |
| 82      | 7:3        | 6.07                   | 11          | 5 7 33.526                 | + 2.1605                         | + .003                           | •••                         | 6.07                   | 11                | 35 1 12.96                      | + 4.546                          | —·30                             |                             |          |
| 83      | 6.0        | 6:07                   | 10          | 5 11 7.170                 | + 2.1206                         | +.003                            |                             | 6.07                   | 10                | 36 5 7.66                       | + 4.243                          | — ·30                            |                             |          |
| 84      | 5.0        | 6.08                   | 11          | 5 14 3:461                 | + 2.1559                         | + .003                           | + '0062                     | 6.08                   | 11                | 34 59 16·88<br>15·99            | + 3.992                          | —·31                             | :329                        |          |
| A       |            | 6:08                   |             | *455                       | 1 9.0700                         |                                  | •••                         | 6:00                   |                   |                                 | 1. 2.756                         | ·29                              | •••                         |          |
| 85      | 8.0        | 6.08                   | 10<br>10    | 5 16 48.060<br>5 20 15.839 | + 2.0700                         | + .003                           |                             | 6.08                   | 10                | 37 21 55·80<br>39 45 58·69      | + 3·756<br>+ 3·458               | — ·29<br>— ·28                   | •••                         |          |
| 86      | 7.5        | 6.08                   | 11          |                            | + 1.9771                         | + .003                           |                             | 6.08                   | . 1               | 38 59 3.31                      | + 2.979                          | — ·29                            | •••                         | •••      |
| 87      | 4.0        | 6.08                   | 12          | 5 25 48·633<br>5 27 50·359 | + 2.0030<br>+ 2.1273             | + .003                           | + .0019                     | 6.08                   | 11 12             | 35 32 23.64                     | + 2.804                          | — 25<br>— 31                     | -···048                     | ***      |
| 88<br>A |            |                        |             | 327 30 359                 |                                  | + .003                           |                             |                        |                   | *81                             |                                  |                                  |                             | • • • •  |
| 89      | 6.8        | 6.09                   | 9           | 5 31 21.517                | + 2.2518                         | + .002                           |                             | 6.09                   | 10                | 31 45 23.13                     | + 2.494                          | :33                              |                             | •••      |
| 90      | 2-3        | 6.10                   | 6           | 5 36 12:493                | + 2.1718                         | + .003                           | 0003                        | 6.10                   | 6                 | 34 7 28.00                      | + 2.078                          | <b>—</b> ·32                     | 038                         |          |
| A       |            |                        |             | 489                        |                                  |                                  |                             |                        |                   | 33                              |                                  |                                  |                             |          |
| 91      | 8.6        | 6.09                   | 9           | 5 40 4.011                 | + 1.9472                         | + .003                           |                             | 6.09                   | 9                 | 40 12 16.86                     | + 1.741                          | —·28                             |                             |          |
| 92      | 4.6        | 6.09                   | 9           | 5 42 28.022                | + 2.2288                         | + .002                           |                             | 6.09                   | 10                | 32 20 32.01                     | + 1.532                          | —·33                             |                             |          |
| 93      | 3.0        | 6.09                   | 10          | 5 47 36.638                | + 2.1100                         | + .003                           | + .0031                     | 6.09                   | 10                | 35 48 13.13                     | + 1.083                          | - '31                            | + .403                      | i I      |
| A       |            |                        |             | •599                       |                                  |                                  |                             |                        |                   | .47                             |                                  |                                  |                             |          |
| 94      | 8.6        | 6.09                   | 11          | 5 50 51.886                | + 2.1753                         | + '002                           |                             | 6.09                   | 10                | 33 53 47.55                     | + 0.799                          | —·32                             |                             |          |
| 95      | 9.0        | 6.09                   | 10          | 5 53 30.208                | + 2.0890                         | + .002                           | •••                         | 6.09                   | 10                | 36 21 44.49                     | + 0.568                          | —·31                             |                             |          |
| 96      | 8.6        | 6.09                   | 11          | 5 56 41.937                | + 1.9125                         | + .002                           | •••                         | 6.09                   | 11                | 40 57 42.06                     | + 0.289                          | <b>— ·2</b> 8                    |                             |          |
| 97      | 8.5        | 6.09                   | 10          | 6 0 11.603                 | + 1.9951                         | + .002                           |                             | 6.09                   | 10                | 38 52 27:01                     | -0.018                           | <b> ·2</b> 9                     |                             |          |
| 98      | 8.6        | 6.09                   | 11          | 6 4 0.562                  | + 1.9810                         | + .002                           |                             | 6.09                   | 11                | 39 14 38 42                     | -0.351                           | —· <b>2</b> 9                    |                             |          |
| 99      | 8.6        | 6.09                   | 11          | 6 7 28.237                 | + 2.2459                         | + .002                           |                             | 6.09                   | 11                | 31 45 8.53                      | - 0.653                          | 33                               |                             |          |
| 100     | 8.4        | 6.08                   | 11          | 6 10 34.874                | + 2.2001                         | + .005                           |                             | 6.08                   | 11                | 33 9 54.42                      | 0.925                            | <b>—</b> ·32                     |                             |          |
| 101     | 5.0        | 6.09                   | 12          | 6 13 10.285                | + 2.1345                         | + .002                           | 0008                        | 6.09                   | 12                | 35 6 31.04                      | 1.151                            | —·31                             | + .074                      |          |
| A       |            |                        |             | *324                       |                                  |                                  |                             | •••                    |                   | .17                             |                                  |                                  |                             |          |
| 102     | 6.2        | 6.09                   | 11          | 6 16 15.549                | + 2.1613                         | + .005                           |                             | 6.09                   | 11                | 34 21 18 89                     | -1.420                           | <b>—</b> ·32                     |                             |          |
| 103     | 7.0        | 6.09                   | 11          | 6 20 28:468                | + 2.0708                         | + .002                           |                             | 6.09                   | 11                | 36 57 49.30                     | — 1·788                          | —·31                             |                             | sp. of 3 |
| 104     | 5-4        | 6.09                   | 11          | 6 24 38.823                | + 2.2254                         | + .002                           | <b></b> ·0049               | 6.09                   | 11                | 32 31 11:62                     | 2.152                            | —·32                             | + .021                      |          |
| A       | •••        |                        | •••         | .770                       |                                  |                                  |                             |                        |                   | 12-10                           |                                  |                                  |                             |          |
| 105     | 5.0        | 6.09                   | 10          | 6 29 5.974                 | + 2.0507                         | + .002                           |                             | 6.09                   | 10                | 37 37 26 56                     | -2.538                           | 30                               |                             |          |
| 106     | 7.2        | 6.09                   | 10          | 6 32 10.869                | + 2.0112                         | + .001                           |                             | 6.09                   | 10                | 38 43 53.18                     | -2.806                           | —· <b>2</b> 9                    |                             |          |
| 107     | 3-4        | 6.10                   | 11          | 6 34 51-227                | + 1.8358                         | + .001                           | 0002                        | 6.10                   | 10                | 43 6 45.11                      | - 3.036                          | —·26                             | 019                         |          |
| A       |            | 0.10                   |             | 247                        |                                  |                                  |                             |                        |                   | 44.94                           |                                  |                                  | •••                         |          |
| 108     | 6.5        | 6.10                   | 10          | 6 38 8 317                 | ~ 1·9564                         | + .001                           |                             | 6.09                   | 9                 | 40 15 31.87                     | -3:320                           | — ·28                            |                             | sp.      |
| 109     | 8.6        | 6.11                   | 9           | 6 41 9.154                 | +1.9744                          | + .001                           |                             | 6.11                   | 9                 | 39 51 59.87                     | - 3·580                          | —·28                             |                             | sf.      |
| 110     | 4.0        | 6.12                   | 12          | 6 46 17:518                | + 2.2417                         | + .001                           | - 0017                      | 6.12                   | 12                | 32 23 54:53                     | <b>— 4</b> ·022                  | —·32                             | + .018                      | mf.of3   |
| A 111   | Q+4        | 6:19                   | 10          | 525                        |                                  |                                  |                             | <br>C-10               |                   | 53.96                           | 4.900                            | •••                              | •••                         |          |
| 111     | 8.4        | 6.12                   | 10          | 6 49 11:427                | + 2.2194                         | + '001                           |                             | 6.12                   | 10                | 33 9 39.26                      | - 4·269                          | —·32                             |                             | sf.      |
| 112     | 6·4<br>8·0 | 6.12                   | 10          | 6 52 19·212<br>6 55 15·701 | + 2.2696                         | + .001                           |                             | 6.12                   | 10                | 31 39 59.82                     | - 4·536                          | — ·32                            |                             |          |
| 114     | 7.0        | 6.12                   | 10          | 6 58 22.736                | + 2.1676<br>+ 2.1531             | + .001                           |                             | 6.12                   | 11                | 34 53 16·37<br>35 24 39·44      | - 4·787<br>- 5 052               | — ·30                            |                             |          |
| 117     | 10         | ULL                    | 10          | 0 00 22 180                | 7 2 1001                         | + .001                           |                             | 0.12                   | 10                | 00 24 09 44                     | - 5 052                          | 30                               |                             |          |

| No.      | Mag. | Mean<br>Date.<br>1900+ | No.<br>of<br>Obs. | Mean R.A.<br>1905·0.       | Annual<br>Precession,<br>1905 0. | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Mean<br>Date,<br>1900+ | No.<br>of<br>Obs. | Mer<br>Declin<br>1905 | ation.         | Annual<br>Precession.<br>1905.0. | Secular<br>Variation,<br>1905-0. | Aunual<br>Proper<br>Motion. | Remarks. |
|----------|------|------------------------|-------------------|----------------------------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------------|-----------------------|----------------|----------------------------------|----------------------------------|-----------------------------|----------|
|          |      |                        |                   | h. m. s.                   | 8.                               |                                  | s.                          |                        |                   | 0,                    | "              |                                  | "                                | "                           |          |
| 115      | 7.0  | 6.12                   | 10                | 7 1 33-389                 | + 1 9783                         | + .001                           |                             | 6.12                   | 10                | 40 20                 | 25.66          | - 5.319                          | <b>— ·2</b> 8                    |                             |          |
| 116      | 8.2  | 6.12                   | 10                | 7 4 59 908                 | + 2.0985                         | + .001                           |                             | 6.12                   | 10                | 37 12                 | 13.34          | <b>— 5.610</b>                   | - 29                             |                             | sf       |
| 117      | 7.0  | 6.13                   | 11                | 7 8 9.023                  | + 2:0399                         | + .001                           |                             | 6.13                   | 11                | 38 56                 |                | — 5·873                          | 29                               |                             |          |
| 117a     | 8.2  | 6.14                   | 10                | 7 10 21-294                | + 2.1753                         | + .001                           |                             | 6.14                   | 10                | 35 9                  | 20.95          | - 6·056                          | 30                               |                             | • • • •  |
| 118      | 3-3  | 6.14                   | 12                | 7 13 47 252                | + 2.1198                         | + .001                           | -0015                       | 6.14                   | 12                | 36 55                 |                | - 6.343                          | - 29                             | + '004                      | ••       |
| A 110    | 0.5  | 0.14                   | 10                | 218                        | 1.0.0516                         | 1 :001                           |                             | (8-1 A                 |                   | 20. 4                 | 94             | C.7701                           |                                  |                             | •••      |
| 119      | 8.2  | 6.14                   | 10                | 7 19 5·112<br>7 22 0·252   | + 2 0516                         | + .001                           | •••                         | 6.14                   | 10                | 39 4                  |                | -6.781 $-7.020$                  | - ·28                            | •••                         | •••      |
| 120      | 6.2  | 6.16                   | 10                | 7 25 12:215                | +2.2806 $+2.3049$                | + .001                           |                             | 6.16                   | 10                | 32 19                 | 9.06           | -7.282                           | 31                               |                             | en       |
| 122      | 8.6  | 6.17                   | 9                 | 7 28 21:057                | + 2.2619                         | + .001                           |                             | 6.17                   | 9                 | 33 12                 | 29.00          | -7.538                           | - 30                             |                             | sp       |
| 123      | 8.5  | 6.17                   | 9                 | 7 30 24.539                | + 2.2148                         | + .002                           | ***                         | 6.17                   | 9                 | 34 48                 |                | - 7.704                          | _ ·29                            |                             | nf       |
| 124      | 5.0  | 6.17                   | 10                | 7 33 51.144                | + 2.2219                         | + .001                           | 0028                        | 6.17                   | 10                | 34 45                 |                | -7·981                           | - 29                             | + .018                      |          |
| A        |      |                        |                   | 166                        |                                  |                                  |                             |                        |                   | 02.20                 | 45             |                                  |                                  |                             |          |
| 125      | 8.5  | 6.17                   | 10                | 7 36 4.334                 | + 2.1662                         | + .002                           |                             | 6.17                   | 10                | 36 35                 | 35.50          | — 8·159                          | 29                               |                             |          |
| 123      | 4-3  | 6.17                   | 10                | 7 41 52 125                | + 2.1387                         | + .001                           | 0042                        | 6.17                   | 10                |                       | 16.09          | <b>-8.620</b>                    | <b>—</b> ·28                     | 002                         |          |
| A        |      |                        |                   | .102                       |                                  |                                  |                             |                        |                   |                       | -11            |                                  |                                  |                             |          |
| 127      | 8.4  | 6.17                   | 10                | 7 45 41.742                | + 2 2927                         | + .001                           |                             | 6.17                   | 10                | 33 5                  | 26.18          | - 8·921                          | <b>3</b> 0                       |                             | sp       |
| 128      | 4.0  | 6.17                   | 11                | 7 48 57 016                | + 2.0631                         | + .001                           | 0020                        | 6.17                   | 11                | 40 20                 | 49.69          | <b>—</b> 9·175                   | <b>— ·26</b>                     | + .003                      |          |
| A        |      | •••                    |                   | .054                       |                                  |                                  |                             |                        |                   |                       | .78            |                                  |                                  | •••                         |          |
| 129      | 8.0  | 6.17                   | 10                | 7 51 28 976                | + 2.1439                         | + .001                           |                             | 6.17                   | 10                | 38 10                 | 7.67           | <b>—</b> 9·371                   | `27                              | =                           | sp       |
| 130      | 7.5  | 6.17                   | 11                | 7 54 26 873                | + 2.0927                         | + .001                           |                             | 6.17                   | 11                | 39 52                 | 0.39           | 9.600                            | 26                               |                             | sf       |
| 131      | 8.4  | 6.19                   | 10                | 7 57 26.441                | + 2.3663                         | + .001                           |                             | 6.19                   | 10                | 31 13                 | 47.27          | - 9.828                          | <b>— ·29</b>                     |                             | nf of 3  |
| 132      | 2-3  | 6.17                   | 11                | 8 0 14.681                 | + 2.1111                         | + .001                           | '0035                       | 6.17                   | 11                | 39 44                 | 7.04           | - 10 042                         | <b>— ·26</b>                     | + .013                      |          |
| A        |      |                        |                   | .674                       |                                  |                                  |                             |                        |                   |                       | 6.97           | •••                              |                                  |                             |          |
| 133      | 8.3  | 6.18                   | 10                | 8 4 4.969                  | + 2.3340                         | + .001                           |                             | 6.18                   | 8                 | 32 48                 | 55.22          | 10.331                           | <b>— ·29</b>                     |                             | np       |
| 134      | 8.5  | 6.18                   | 10                | 8 7 1.961                  | + 2.3714                         | + .001                           |                             | 6.18                   | 10                | 31 40                 | 22.56          | — 10·551                         | <b>— ·2</b> 9                    |                             |          |
| 135      | 8.4  | 6.18                   | 11                | 8 9 49 838                 | + 2.3399                         | + .001                           |                             | 6.18                   | 11                | 33 0                  | 41.59          | 10.758                           | 28                               |                             |          |
| 136      | 5-4  | 6.18                   | 13                | 8 14 59 934                | + 2.2544                         | + .002                           | 0105                        | 6.18                   | 13                | 36 21                 | 52.60          | - 11.137                         | <b>—·27</b>                      | + .091                      |          |
| A        | •••  |                        |                   | .8)4                       | •••                              | •••                              | •••                         |                        |                   |                       | -68            |                                  | •••                              |                             |          |
| 137      | 9.0  | 6.20                   | 10                | 8 17 58:633                | + 2.2820                         | + .003                           |                             | 6.20                   | 10                | 35 40                 | 7.48           | — 11:353                         | 27                               |                             |          |
| 138      | 8.2  | 6.20                   | 10                | 8 22 11:308                | + 2:2382                         | + .002                           |                             | 6.50                   | 10                | 37 29                 | 49.69          | 11.654                           | <b>— ·2</b> 6                    |                             |          |
| 139      | 8.5  | 6.20                   | 10                | 8 25 2 605                 | + 2.2068                         | + .002                           | •••                         | 6.20                   | 10                | 38 46                 | 38.00          | 11.857                           | 25                               | •••                         | sf       |
| 140      | 7.5  | 6.20                   | 12                | 8 28 41 024                | + 2.1906                         | + .002                           | •••                         | 6.20                   | 11                | 39 37                 |                | — 12·112                         | —·25                             | •••                         |          |
| 141      | 8.5  | 6 20                   | 11                | 8 31 15.093                | + 2.1578                         | + .003                           |                             | 6.20                   | 10                | 40 54                 |                | - 12:290                         | _ '24                            |                             | sf       |
| 142      | 4-5  | 6.21                   | 13                | 8 36 23:005                | + 2.3471                         | + .003                           | 0001                        | 6.21                   | 12                | 34 58                 |                | - 12:641                         | '26                              | - 024                       |          |
| A 140    | 4.0  | 0.01                   |                   | .008                       |                                  |                                  |                             |                        |                   | 00 50                 | 15.43          | 10.050                           |                                  |                             | •••      |
| 143      | 4.0  | 6.21                   | 13                | 8 39 46:449                | + 2.4111                         | + .003                           | 0017                        | 6.21                   | 12                | 32 50                 | 37.23          | - 12·870                         | —·26                             | + .012                      | ***      |
| A<br>144 | 5.0  | 6.21                   | 11                | •469                       | 1 0.4570                         |                                  |                             | 6.91                   | 11                | 91 10                 | 18             | — 13·063                         | ·26                              | •••                         | sf sf    |
| 145      | 7.5  | 6.21                   | 11                | 8 42 40 121                | + 2:4579                         | + .003                           |                             | 6.21                   | 11                |                       | 42.75          | — 13·325                         | — 25<br>— 25                     | •••                         | nf       |
| 146      | 8.8  | 6.23                   | 10                | 8 46 39·221<br>8 49 57·608 | + 2:3584                         | + '003                           | •••                         | 100                    | 10                | 35 34                 | 32.40          | — 13·541                         | — 25<br>— ·25                    | •••                         | m of 3   |
| 147      | 8.0  | 6.22                   | 10                | 8 53 43:668                | + 2.4223 + 2.3519                | + .004                           |                             | 6.22                   | 9 10              | 33 25<br>36 35        | 12·07<br>50·76 | -13.782                          | - · 24                           | •••                         | np       |
| 148      | 8.5  | 6.22                   | 10                | 8 55 57.769                | + 2.2981                         | + '004                           |                             | 6.22                   | 10                | 38 51                 | 1.41           | — 13·923                         | — ·23                            | •••                         |          |
| 149      | 5-1  | 6 22                   | 9                 | 9 0 52.640                 | + 2.0729                         | + 004                            | _··0071                     | 6.22                   | 9                 | 46 43                 | 9.34           | - 14·229                         | _·21                             | - 024                       |          |
| A        |      |                        |                   | •588                       |                                  |                                  | - 00/1                      |                        |                   | 10 10                 | .72            |                                  |                                  |                             |          |
| 150      | 2-3  | 6.23                   | 11                | 9 4 30.063                 | + 2.2073                         | + '004                           | 0035                        | 6.23                   | 10                | 43 2                  | 56.81          | <b>— 14·45</b> 0                 | _··22                            | + .013                      |          |
| A        |      |                        |                   | .028                       |                                  |                                  |                             |                        |                   |                       | 55.62          |                                  |                                  |                             |          |
| 151      | 6.5  | 6.23                   | 10                | 9 7 58.760                 | + 2.3378                         | + .005                           |                             | 6.23                   | 10                | 38 52                 | 9.80           | - 14.660                         | _·22                             | ***                         |          |
| 152      | 6.5  | 6.23                   | 11                | 9 11 9.761                 | + 2.3908                         | + .005                           |                             | 6.23                   | 11                | 37 11                 | 26.40          | - 14·848                         | _·22                             | •••                         |          |
|          |      |                        |                   |                            |                                  |                                  |                             |                        |                   |                       |                |                                  |                                  |                             |          |

7

| No.   March   March  |     |      |       | 1   |                       |             |            | 1       | 1     | 1   | 1        |       |                 |              | 1      |          |
|--|-----|------|-------|-----|-----------------------|-------------|------------|---------|-------|-----|----------|-------|-----------------|--------------|--------|----------|
| 156   88   625   10   92   92   92   92   92   93   93   93  | No. | Mag. | Date. | of  |                       | Precession. | Variation. | Proper  | Date. | of  | Declinat | tion. | Precession.     | Variation.   | Proper | Remarks. |
| 154   82   625   12   9   18   39   40   2   42   50   50   4   40   50   50   50   50   |     |      |       |     | h m s                 | 8.          | S.         | 8.      |       |     | 0,       | "     | ,,              | "            | "      |          |
| 156   50   625   12   9   25   19   19   19   19   19   19   19   1  | 154 | 8.2  | 6 25  | 12  |                       | }           |            |         | 6.25  | 12  | 39 14    | 49.82 | - 15.280        | —·22         |        | nf       |
| 1.57   86   626   10   9   29   3001   + 2   485   + 006     6.56   10   32   28   4940   -15   854   -15   -15   854   -15        | 155 | 8.8  | 6.25  | 10  | 9 21 49 552           | + 2.5455    | + .002     |         | 6.25  | 10  | 31 46    | 30.15 | - 15.459        | —·23         |        | nf       |
| 158  | 156 | 50   | 6.25  | 12  | 9 25 19 403           | + 2.4761    | + .006     | 0027    | 6.25  | 12  | 35 32    | 8.22  | — 15·651        | <b>—</b> ·22 | 010    |          |
| 188  | A   |      |       | ••• | 408                   |             |            |         |       |     |          | .28   |                 |              |        |          |
| A  | 157 | 8.6  | 6.26  | 10  | 9 29 3.591            | + 2.5485    | + .006     |         | 6.26  | 10  | 32 38    | 49.40 | — 15·854        | —·22         |        | sp       |
| 150  | 158 | 50   | 6.26  | 11  | 9 33 25:512           | + 2.1572    | + .007     | 0120    | 6.26  | 10  | 48 55    | 44.70 | -16.084         | 18           | + .030 |          |
| 160  | A   |      |       |     | .203                  |             |            |         |       |     |          | •58   |                 |              |        |          |
| 161   80   627   10   9   42   54   540   24   4677   4   4008     627   10   38   58   1766     16   566     16   | 159 | 8.8  | 6.27  | 10  | 9 36 9.360            | + 2.5457    | + '007     |         | 6.27  | 10  | 33 52    | 20.65 | — 16·225        | <b>— ·20</b> |        | nf       |
| 168   80   627   10   9   45   27355   + 24611   + 008     627   10   37   54   2505   - 16689   - 19  | 160 | 8.5  | 6.27  | 10  | 9 39 58 878           | + 2.5426    | + .007     |         | 6.27  | 9   | 34 39    | 7.58  | -16.420         | 20           |        | sp       |
| 168  | 161 | 8.0  | 6.27  | 10  | 9 42 54 560           | + 2.4657    | + .008     |         | 6.27  | 10  | 38 53    | 1.96  | 16.566          | 20           |        |          |
| 164   80   627   10   9   51   34757   + 24760   + 000     627   10   39   50   323   -16   981   -19  | 162 | 8.0  | 6 27  | 10  | 9 45 27:335           | + 2.4961    | + .008     |         | 6.27  | 10  | 37 54    | 25.05 | <b>— 16.689</b> | <b>— ·19</b> |        | sf       |
| 165  | 163 | 8.5  | 6.27  | 10  | 9 49 14.178           | + 2.5290    | + .008     |         | 6.27  | 10  | 36 58    | 49.51 | <b>— 16·870</b> | 19           |        | sf       |
| 105  | 164 | 8.0  | 6.27  | 10  | 9 51 34.757           | + 2.4769    | + .009     |         | 6.27  | 10  | 39 59    | 3.53  | -16.981         | <b>—</b> ·19 |        | nf       |
| 167  | 165 | 8.0  | 6 27  | 11  | 9 54 50.029           | + 2.4711    | + .009     |         | 6.27  | 11  | 40 54    | 18.87 | - 17.130        | —·19         |        |          |
| 168  | 166 | 86   | 6.27  | 10  | 9 58 31.631           | + 2.6583    | + .008     |         | 6 27  | 10  | 31 30    | 41.83 | -17.296         | —·19         |        | sf       |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | 167 | 7.4  | 6.28  | 11  | 10 1 21.882           | + 2.6442    | + .008     |         | 6.28  | 11  | 32 55    | 46.97 | <b>— 17·420</b> | — .19        |        |          |
| 170  | 168 | 8.7  | 6.29  | 8   | 10 4 46.178           | + 2.6383    | + .000     |         | 6.29  | 8   | 33 59    | 28.77 | — 17·565        | 17           |        | sf       |
| A  | 169 | 7.0  | 6.28  | 12  | 10 7 43.073           | + 2.6346    | + .010     | *       | 6.28  | 12  | 34 51    | 20.65 | <b>— 17.688</b> | 17           |        |          |
| 171   80   628   11   10   14   22°679   + 26520   + 010     628   11   35   18   11°27   - 17°955   - 16  | 170 | 4.0  | 6.29  | 11  | 10 10 44.805          | + 2.5271    | + .015     | -:0156  | 6.29  | 12  | 41 39    | 3.74  | - 17.811        | — '16        | +049   |          |
| 172   6-5   6-29   14   10   19   19   56   + 2   6360   + 012   -0150   6-29   14   37   31   39   52   -18   14   30   36   207   -18   270   -16   + 010   -16   -1 | A   |      |       |     | •760                  |             |            | •••     | •••   |     |          | .76   |                 |              |        |          |
| A  | 171 | 8.0  | 6.28  | 11  | 10 14 22:679          | + 2.6520    | + .010     |         | 6.28  | 11  | 35 18    | 11.27 | <b>— 17·955</b> | —·16         |        |          |
| 173  | 172 | 6–5  | 6.29  | 14  | 10 19 19:576          | + 2.6360    | + .012     | 0150    | 6.29  | 14  | 37 31    | 39.52 | - 18.143        | 16           | 054    |          |
| A  | A   |      |       |     | ·622                  |             |            |         | •••   | ••• |          | .42   |                 |              |        |          |
| 174  | 173 | 4-5  | 6.59  | 14  | 10 22 48.199          | + 2.7475    | + .010     | - 0079  | 6.29  | 14  | 30 35    | 2.07  | <b>— 18·270</b> | <b>— ·16</b> | + .010 |          |
| 175  | A   |      |       | ••• | ·176                  |             | •••        |         | •••   | ••• |          | .02   |                 |              |        |          |
| 176       7·5       6·30       10       10 32 46·269       + 2·6432       + 0·14        6·30       10       40·50       52·88       -18·611       -14           177       8·5       6·30       10       10·37       53·679       + 2·6949       + 0·14        6·30       10       38·52       6·96       -18·774       - ·13           178       8·2       6·30       10       10·40       28·396       + 2·7661       + 0·13        6·30       10       34·50       42·52       -18·851       - ·12            180       8·5       6·30       11       10·48       1·704       + 2·8029       + 0·13        6·30       11       10·46       -19·966       - ·12        sF         181       5·0       6·30       12       10·52       17·299       + 2·8829       + 0·16       + 0·059       6·30       12       36·37       36·37       -19·177       - ·11       - 132          181       5·0       6·32       10       10·5       3·822       + 2·8339       + 0·13        6·32       10 </td <td>174</td> <td>8.2</td> <td>6.30</td> <td>10</td> <td>10 25 55.829</td> <td>+ 2.6822</td> <td>+ .012</td> <td></td> <td>6.30</td> <td>10</td> <td>36 12</td> <td>15.40</td> <td>— 18·381</td> <td>—·15</td> <td></td> <td>sF</td>  | 174 | 8.2  | 6.30  | 10  | 10 25 55.829          | + 2.6822    | + .012     |         | 6.30  | 10  | 36 12    | 15.40 | — 18·381        | —·15         |        | sF       |
| 177 85 630 10 10 37 53 679   | 175 | 7.5  | 6.30  | 11, | 10 29 19 056          | + 2.6442    | + .014     |         | 6.30  | 11  | 39 44    | 51.40 | — 18·497        | —·14         |        | •••      |
| 178       8·2       6·30       10       10       40       28·396       + 2·7561       + ·013        6·30       10       34       50       42·52       -18·851       -·12           179       6·2       6·29       10       10       43       46·957       + 2·8084       + ·012        6·29       10       31 11       10·45       -18·948       - ·13        ef         180       8·5       6·30       11       10·48       1.704       + 2·8029       + ·013        6·30       11       33       9·16       -19·066       - ·12        sF         181       5·0       6·30       12       10·52       17·299       + 2·7832       + ·016       + ·0069       6·30       12       36·37       36·31       - 19·177       - ·11       - ·132          A <td< td=""><td></td><td>7.5</td><td></td><td>10</td><td>10 32 46.269</td><td>+ 2.6432</td><td>+ '014</td><td></td><td>6.30</td><td>10</td><td>40 50</td><td>52.88</td><td>— 18·611</td><td> 14</td><td></td><td></td></td<>  |     | 7.5  |       | 10  | 10 32 46.269          | + 2.6432    | + '014     |         | 6.30  | 10  | 40 50    | 52.88 | — 18·611        | 14           |        |          |
| 179  | 177 | 8.2  |       | 10  | 10 37 53 679          | + 2.6949    | + '014     |         | 6.30  | 10  | 38 52    | 6.96  | - 18.774        | —·13         |        |          |
| 180       8·5       6·30       11       10 48       1·704       + 2·8029       + ·013        6·30       11       33       9       1·16       - 19·066       - ·12        sF         181       5·0       6·30       12       10 52       17·299       + 2·7832       + ·016       + ·0059       6·30       12       36·37       36·31       - 19·177       - ·11       - ·132          A  |     | 8.2  |       | 10  |                       | + 2.7561    | + .013     | •••     |       | 10  | 34 50    | 42.52 | — 18·851        | - 12         |        |          |
| 181 5·0 6·30 12 10·52 17·299 + 2·7832 + ·016 + ·0059 6·30 12 36·37 36·31 - 19·177 - ·11 - ·132  A  |     | 6.2  |       | 10  |                       |             | + .012     | • • • • | 6.29  | 10  | 31 11    | 10.45 | — 18·948        | 13           | •••    | sf       |
| A  |     |      |       |     |                       |             |            |         |       |     |          |       |                 | —·12         | •••    | sF       |
| 182       8 0       6·32       10       10 55       3·822       + 2·8339       + 013        6·32       10       32 33       5·69       — 19·247       — ·11           183       9·0       6·32       10       10 58       42·279       + 2·8223       + 016        6·32       10       35 18       33·93       — 19·333       — ·10          184       8·0       6·34       10       11       1 24·147       + 2·8139       + ·017        6·34       10       37 24       58·54       — 19·394       — ·10           185       7·0       6·34       10       11 4       11·62       + 2·8120       + ·018        6·34       10       38 57       28·17       — 19·455       — ·10           186       8·8       6·35       10       11 7       20·116       + 2·8208       + ·019        6·35       10       39 35       10·15       — 19·559       — ·09           187       7·5       6·35       10       11 10       59·591       + 2·8299       + ·020        6·35       9   | 181 | 5.0  | 6.30  | 12  |                       | + 2.7832    | + .016     | +.0059  | 6.30  | 12  | 36 37    | 36.31 | 19.177          | 11           | —·132  |          |
| 183       90       6:32       10       10 58 42:279       + 2:8223       + 016        6:32       10       35 18 33:93       - 19:333       - 10          184       8:0       6:34       10       11 1 24:147       + 2:8139       + 017        6:34       10       37 24 58:54       - 19:394       - :10           185       7:0       6:34       10       11 4 11:662       + 2:8120       + 018        6:34       10       38 57 28:17       - 19:455       - :10        nf         186       8:8       6:35       10       11 7 20:116       + 2:8298       + 019        6:35       10       39 35 10:15       - 19:519       - 09 <t< td=""><td></td><td></td><td>-</td><td></td><td>and the second second</td><td></td><td></td><td>•••</td><td></td><td></td><td>The same</td><td></td><td></td><td>•••</td><td></td><td></td></t<>   |     |      | -     |     | and the second second |             |            | •••     |       |     | The same |       |                 | •••          |        |          |
| 184       8·0       6·34       10       11       1       24·147       + 2·8139       + ·017        6·34       10       37       24       58·54       — 19·394       — ·10          10       38       57       28·17       — 19·394       — ·10           6·34       10       38       57       28·17       — 19·394       — ·10           6·34       10       38       57       28·17       — 19·455       — ·10           6·34       10       38       57       28·17       — 19·455       — ·10         nf         186       8·8       6·35       10       11       59·519       + 2·8299       + ·020        6·35       9       40       32       21·51       — 19·589       — ·08           188       8·8       6·35       9       11       14       21·431       + 2·8998       + ·016        6·35       9       32       46       51·38       — 19·650       — ·08           190 <td></td>   |     |      |       |     |                       |             |            |         |       |     |          |       |                 |              |        |          |
| 185       7·0       6·34       10       11       4       11·662       + 2·8120       + ·018        6·34       10       38 57 28·17       - 19·455       - ·10        nf         186       8·8       6·35       10       11 7 20·116       + 2·8208       + ·019        6·35       10       39 35 10·15       - 19·519       - ·09           187       7·5       6·35       10       11 10 59·519       + 2·8299       + ·020        6·35       9       40 32 21·51      19·589       - ·08           188       8·8       6·35       9       11 14 21·431       + 2·8998       + ·016        6·35       9       33 8 58·36       - 19·650       - ·08        nf         189       8·5       6·35       10       11 17 14·150       + 2·9129       + ·016        6·35       9       32 46 51·38       - 19·698       - ·07           190       6-5       6·34       10       11 20 52·903       + 2·9104       + ·018       -0111       6·34       10       35 32 29·02       - 19·755       - ·06       + ·011       nF   |     |      |       |     |                       |             |            |         |       |     |          |       |                 |              |        |          |
| 186       8·8       6·35       10       11       7       20·116       + 2·8298       + ·019        6·35       10       39       35       10·15       - 19·519       - ·09            187       7·5       6·35       10       11       10       59·519       + 2·8299       + ·020        6·35       9       40       32       21·51      19·589       - ·08           188       8·8       6·35       9       11       14       21·431       + 2·8998       + ·016        6·35       9       33       8 58·36       - 19·650       - ·08           189       8·5       6·35       10       11       17       14·150       + 2·9129       + ·016        6·35       9       32 46       51·38       - 19·698       - ·07           190       6-5       6·34       10       11       20       52·903       + 2·9104       + ·018       -0111       6·34       10       35 32       29·02       - 19·755       - ·06       + ·011       nF         A <td></td> <td>- 11</td> <td></td> <td></td> <td></td> <td>•••</td>   |     |      |       |     |                       |             |            |         |       |     |          | - 11  |                 |              |        | •••      |
| 187       7·5       6·35       10       11 10 59·519       + 2·8299       + ·020        6·35       9       40 32 21·51       19·589       - ·08            188       8·8       6·35       9       11 14 21·431       + 2·8998       + ·016        6·35       9       33 8 58·36       - 19·690       - ·08        nf         189       8·5       6·35       10       11 17 14·150       + 2·9129       + ·016        6·35       9       32 46 51·38       - 19·698       - ·07           190       6-5       6·34       10       11 20 52·903       + 2·9104       + ·018       - ·0111       6·34       10       35 32 29·02       - 19·755       - ·06       + ·011       nF         A <td></td> <td>11000</td> <td></td> <td></td> <td></td> <td>nf</td>  |     |      |       |     |                       |             |            |         |       |     |          | 11000 |                 |              |        | nf       |
| 188       8·8       6·35       9       11 14 21·431       + 2·8998       + ·016        6·35       9       33 8 58·36       - 19·650       - ·08        nf         189       8·5       6·35       10       11 17 14·150       + 2·9129       + ·016        6·35       9       32 46 51·38       - 19·698       - ·07           190       6-5       6·34       10       11 20 52·903       + 2·9104       + ·018       - ·0111       6·34       10       35 32 29·02       - 19·755       - ·06       + ·011       nF         A   .  |     |      |       |     |                       |             |            |         | 1000  |     |          |       |                 |              |        |          |
| 189     8·5     6·35     10     11 17 14·150     + 2·9129     + ·016      6·35     9     32 46 51·38     - 19·698     - ·07         190     6-5     6·34     10     11 20 52·903     + 2·9104     + ·018     - ·0111     6·34     10     35 32 29·02     - 19·755     - ·06     + ·011     nF       A  |     |      |       |     |                       |             |            |         |       |     |          |       |                 |              | •••    |          |
| 190 6-5 6·34 10 11 20 52·903 + 2·9104 + ·018 - ·0111 6·34 10 35 32 29·02 - 19·755 - ·06 + ·011 nF  A   |     |      |       |     |                       |             |            | •••     |       |     |          |       |                 |              | •••    | nf       |
| A  |     |      |       |     |                       |             |            |         |       |     |          |       |                 |              |        |          |
| 191     7·4     6·34     10     11 23 30·677     + 2·9154     + ·019      6·34     8     36 33 44·96     - 19·792     - ·06         192     4 0     6·35     10     11 28 19·614     + 2·9598     + ·017     - ·0174     6·35     9     31 19 55·00     - 19·855     - ·05     - ·038        A                 193     7·0     6·35     10     11 32 17·423     + 2·9446     + ·021      6·35     9     38 26 1·42     - 19·900     - ·04      np       194     5·0     6·36     10     11 35 29·507     + 2·9755     + ·019     - ·0034     6·36     10     34 13 5·60     - 19·932     - ·04     + ·006  |     |      |       |     |                       |             |            | 0111    |       |     | 35 32    |       |                 | - 06         | + .011 | nF       |
| 192     4 0     6·35     10     11 28 19·614     + 2·9598     + ·017     -·0174     6·35     9     31 19 55·00    19·855    05    038        A   |     |      |       |     |                       |             |            |         |       |     | 00.00    |       |                 |              | •••    |          |
| A  |     |      |       |     |                       |             |            |         |       |     |          |       |                 |              |        | •••      |
| 193 7·0 6·35 10 11 32 17·423 + 2·9446 + ·021 6·35 9 38 26 1·42 -19·900 -·04 np 194 5·0 6·36 10 11 35 29·507 + 2·9755 + ·019 -·0034 6·36 10 34 13 5·60 -19·932 -·04 + ·006  |     |      |       |     |                       |             |            |         |       |     | 31 19    |       |                 |              |        |          |
| 194 5·0 6·36 10 11 35 29·507 + 2·9755 + ·019 -·0034 6·36 10 34 13 5·60 - 19·932 - ·04 + ·006   |     |      |       |     |                       |             |            |         |       |     | 20.00    |       | 1               |              |        |          |
| A 1956   |     |      |       |     |                       |             |            |         |       |     |          |       |                 |              |        |          |
|  |     |      |       |     |                       |             |            |         |       |     | 34 13    |       |                 |              |        |          |
|  | A   | •••  |       |     | 500                   |             | ***        |         | •••   | ••• |          | 21    |                 |              |        | •••      |

8

|     |      |                        | 1           |                |                 |                                  |                                  |                             | 1                      |                   |                        |                |                                  |                                  |                             |           |
|-----|------|------------------------|-------------|----------------|-----------------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------------|------------------------|----------------|----------------------------------|----------------------------------|-----------------------------|-----------|
| No. | Mag. | Mean<br>Date.<br>1900+ | No. of Obs. | Mean R<br>1905 |                 | Annual<br>Precession.<br>1905'0. | Secular<br>Variation,<br>1905 0, | Annual<br>Proper<br>Motion. | Mean<br>Date,<br>1900+ | No.<br>of<br>Obs. | Mea<br>Declina<br>1905 | tion.          | Annual<br>Precession,<br>1905'0. | Secular<br>Variation,<br>1905-0, | Annual<br>Proper<br>Motion. | Remarks.j |
|     |      |                        |             | h. m.          | s.              | s.                               |                                  | s.                          |                        |                   | 0 /                    | "              | "                                | "                                | "                           |           |
| 195 | 8.0  | 6.35                   | 10          | 11 38          | 8.782           | + 2.9740                         | + .022                           | •••                         | 6.35                   | 9                 | 37 45                  | 46.31          | 19.955                           | 03                               |                             | nf        |
| 196 | 5.0  | 6.36                   | 10          |                | 58.985          | + 2.9845                         | + .024                           | -133                        | 6.36                   | 9                 | 39 58                  | 58.64          | - 19.984                         | 02                               | + .390                      | nF        |
| 197 | 8.0  | 6.36                   | 11          |                | 56.051          | + 3.0178                         | + .019                           | •••                         | 6.36                   | 10                | 31 54                  | 59 54          | -20 003                          | <b>−</b> ·02                     |                             |           |
| 198 | 8.5  | 6.36                   | 10          |                | 13.883          | + 3.0131                         | + '026                           | •••                         | 6.36                   | 9                 | 40 53                  | 35.29          | - 20.020                         | 01                               |                             | sf of 3   |
| 199 | 6.5  | 6.36                   | 10          |                | 14.051          | + 3.0434                         | + .020                           | ***                         | 6.36                   | 9                 | 32 47                  | 11.52          | - 20:034                         | .00                              |                             |           |
| 200 | 7.5  | 6.36                   | 10          |                | 26.132          | + 3.0534                         | + .023                           |                             | 6.36                   | 9                 | 35 45                  | 20.13          | 20:042                           | .00                              | •••                         |           |
| 201 | 6-5  | 6.36                   | 10          | 11 58 4        | 44.216          | + 3.0659                         | + '028                           | +.0262                      | 6.36                   | 8                 | 41 54                  | 7.72           | 20:046                           | + '01                            | - 117                       |           |
| A   | 0.0  | e.97                   | 10          | 10 1 6         | 133             |                                  |                                  | •••                         | 6.37                   | 9                 | 99 50                  | •53            | 90.046                           |                                  | ***                         |           |
| 202 | 9.0  | 6.37                   | 10          | 12 1 2<br>12 5 | 23.235          | + 3.0780                         | + .022                           | •••                         | 6.40                   | 9                 | 33 56<br>34 10         | 37.52          | - 20.046                         | + .01                            | •••                         |           |
| 204 | 7.5  | 6.39                   | 9           |                | 7·991<br>51·556 | + 3·0928<br>+ 3·1071             | + .022                           | •••                         | 6.39                   | 9                 | 36 59                  | 33.60          | 20.041                           | + '02                            |                             |           |
| 205 | 9.2  | 6.39                   | 10          |                | 14.121          | + 3.1274                         | + .028                           |                             | 6.39                   | 9                 | 39 58                  | 54·71<br>38·55 | 20:034                           | + 02                             | •••                         | nf        |
| 206 | 7.8  | 6.39                   | 10          | 12 15          | 6.474           | + 3.1395                         | + .026                           |                             | 6.39                   | 9                 | 37 16                  | 22.66          | - 20.022                         | + 04                             | •••                         | sf        |
| 207 | 7.2  | 6.39                   | 10          |                | 42.372          | + 3.1550                         | + 020                            | •••                         | 6.39                   | 9                 | 38 38                  | 49.29          | - 20·002<br>- 19·986             | + 04                             |                             |           |
| 208 | 6.0  | 6.39                   | 10          |                | 21.197          | + 3.1545                         | + .025                           | —·013                       | 6.39                   | 9                 | 34 39                  | 35.69          | — 19·967                         | + 05                             |                             | sf        |
| A . |      |                        |             | 12 20 2        | .083            |                                  |                                  |                             |                        |                   | 04.03                  | 36.03          |                                  | + 05                             | '021                        | ***       |
| 209 | 8.0  | 6.41                   | 10          | 12 24 4        | 43.857          | + 3.1971                         | + .030                           | •••                         | 6.41                   | 8                 | 40 52                  | 38.21          | 19·929                           |                                  |                             | gF        |
| 210 | 7.0  | 6.41                   | 10          |                | 32.788          | + 3.1724                         | + .023                           | •••                         | 6.41                   | 9                 | 31 56                  | 23.41          | — 19·901                         | + 07                             | •••                         |           |
| 211 | 8.8  | 6.41                   | 10          |                | 32.824          | + 3.1983                         | + .025                           | •••                         | 6.41                   | 9                 | 35 18                  | 4.78           | — 19·868                         | + 07                             | •••                         | nf        |
| 212 | 9.0  | 6.41                   | 10          |                | 11.224          | + 3.1976                         | + .023                           | •••                         | 6.41                   | 9                 | 32 12                  | 7.77           | — 19·823                         | + 07<br>+ 08                     | •••                         | P         |
| 213 | 8.0  | 6.42                   | 10          |                | 23.654          | + 3.2384                         | + .029                           | •••                         | 6.42                   | 9                 | 37 22                  | 55.25          | - 19·780                         |                                  | •••                         | me as 9   |
| 214 | 6.0  | 6.42                   | 10          |                | 18:363          | + 3.2482                         | + .028                           |                             | 6.42                   | 9                 | 36 55                  | 45.91          | — 19·737<br>— 19·737             | + 08<br>+ 09                     |                             | nf of 3   |
| 215 | 5.6  | 6.42                   | 9           |                | 31.711          | + 3.2470                         | + 026                            | 0036                        | 6.42                   | 9                 | 33 28                  | 53.28          | — 19·652                         | + 10                             | 034                         | 100       |
| A   |      |                        | -           | 12 30 (        | 746             | T 0 2210                         | - 020                            |                             |                        |                   | 00 20                  | 31             |                                  |                                  | -                           |           |
| 216 | 4-5  | 6.42                   | 10          | 12 48          |                 | + 3.3037                         | + .032                           | + .0041                     | 6.42                   | 9                 | 39 39                  | 44.27          | — 19·605                         | + 11                             | :032                        | • • • •   |
| A   |      |                        |             | 12 10 .        | 275             | T 0 0001                         |                                  |                             |                        |                   | 00 00                  | •49            |                                  |                                  |                             | •••       |
| 217 | 8.5  | 6.42                   | 10          | 12 50          | 44.635          | + 3.3230                         | + .034                           |                             | 6.42                   | 8                 | 40 28                  | 55.36          | — 19·556                         | + 12                             | •••                         | nf        |
| 218 | 8.5  | 6.43                   | 9           |                | 27.251          | + 3.3298                         | + .031                           |                             | 6.43                   | 0.                | 38 46                  | 57-35          | - 19.462                         | + 12                             |                             |           |
| 219 | 8.2  | 6.43                   | 10          |                | 37.149          | + 3.2926                         | + .026                           |                             | 6.43                   | 9                 | 32 37                  | 39.21          | — 19·372                         | + 13                             |                             | sf        |
| 220 | 8.5  | 6.46                   | 10          |                | 20.592          | + 3.2962                         | + .025                           |                             | 6.46                   | 10                | 31 55                  | 11.74          | — 19·309                         | + 13                             |                             |           |
| 221 | 7.0  | 6.48                   | 9           |                | 12.382          | + 3 3354                         | + .028                           |                             | 6.48                   | 10                | 34 37                  | 29.52          | <b>—</b> 19·216                  | + 14                             |                             | nf        |
| 222 | 8.5  | 6.48                   | 10          | 13 9           | 9.446           | + 3.3346                         | + '027                           |                             | 6.48                   | 10                | 33 25                  | 36.10          | - 19.140                         | + 15                             |                             |           |
| 223 | 6-5  | 6.48                   | 11          | 13 11 3        |                 | + 3.3194                         |                                  | + .0028                     | 6.48                   | 11                | 31 0                   |                | - 19:076                         | + 16                             | 060                         |           |
| A   |      |                        |             |                | .389            |                                  |                                  |                             |                        |                   |                        | 12.70          |                                  |                                  |                             |           |
| 224 | 3.0  | 6.48                   | 11          | 13 15          |                 | + 3.3881                         | + .030                           | 0298                        | 6.48                   | 10                | 36 12                  |                | — 18·975                         | + 16                             | —·087                       |           |
| A   |      |                        |             |                | .176            |                                  |                                  | ***                         |                        |                   |                        | 40.85          |                                  | •••                              |                             |           |
| 225 | 8.5  | 6:48                   | 10          | 13 19          |                 | + 3:3941                         | + .029                           |                             | 6.48                   | 10                | 35 17                  | 36.61          | — 18·852                         | + 17                             |                             |           |
| 226 | 8.7  | 6.48                   | 10          | 13 22 2        | 21.240          | + 3.4654                         | + .035                           |                             | 6.48                   | 10                | 39 54                  | 2.46           | -18.766                          | + 19                             |                             |           |
| 227 | 4-5  | 6.47                   | 10          | 13 25 3        | 31.929          | + 3.4659                         | + .034                           | -·0041                      | 6.47                   | 10                | 38 55                  | 0.43           | — 18·666                         | + 19                             | —·013                       |           |
| A   |      |                        |             |                | *855            |                                  |                                  |                             |                        |                   |                        | •48            |                                  |                                  |                             |           |
| 228 | 8.5  | 6.47                   | 10          | 13 28          | 14.651          | + 3.4615                         | + .032                           |                             | 6.47                   | 10                | 37 45                  | 13.76          | 18.578                           | + 20                             |                             | n         |
| 229 | 8.0  | 6.47                   | 10          | 13 31 4        | 42.335          | + 3.5158                         | + .036                           |                             | 6.47                   | 10                | 40 24                  | 45.42          | 18.463                           | + 21                             | •••                         |           |
| 230 | 7.5  | 6.47                   | 10          | 13 35          | 3.203           | + 3.4341                         | + .029                           |                             | 6.47                   | 10                | 33 52                  | 36.01          | 18:346                           | + 21                             |                             |           |
| 231 | 4-5  | 6.48                   | 12          | 13 40          | 17.156          | + 3.4342                         | + .028                           | 0375                        | 6.48                   | 12                | 32 33                  | 48.89          | 18:157                           | + 22                             | 151                         |           |
| A   |      |                        |             |                | 162             | •••                              | ***                              | •••                         |                        |                   |                        | .48            | •••                              |                                  |                             |           |
| 232 | 6.7  | 6.48                   | 10          | 13 43 2        | 26.702          | + 3.4842                         | + .030                           | •••                         | 6.48                   | 10                | 35 13                  | 34.71          | — 18·038                         | + 23                             |                             |           |
| 233 | 8.0  | 6.48                   | 10          | 13 47          | 41.205          | + 3.4397                         | + .026                           | •••                         | 6.48                   | 10                | 31 15                  | 8.54           | — 17·87 <b>4</b>                 | + 23                             |                             | nf        |
| 234 | 7.5  | 6.48                   | 10          | 13 51 8        | 34.662          | + 3.5013                         | + .030                           | •••                         | 6.48                   | 10                | 34 26                  | 20.92          | -17:717                          | +.24                             |                             |           |
| 235 | 7.5  | 6.49                   | 10          | 13 54 4        | 42.751          | + 3.5547                         | + .033                           | •••                         | 6.49                   | 10                | 36 56                  | 11.72          | -17.587                          | +.26                             |                             | m of 3    |
| 236 | 8.5  | 6.49                   | 11          | 13 58          | 19.362          | + 3.5880                         | + .034                           | •••                         | 6.49                   | 11                | 38 0                   | 10.31          | -17:434                          | +.27                             |                             |           |
|     |      |                        |             |                |                 |                                  |                                  |                             |                        |                   |                        |                |                                  |                                  |                             |           |

|            |            |                        |                   |                              |                                  |                                  |                             |                        |                   | ,                               |                                  |                                  |                             |          |
|------------|------------|------------------------|-------------------|------------------------------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------------|---------------------------------|----------------------------------|----------------------------------|-----------------------------|----------|
| No.        | Mag.       | Mean<br>Date.<br>1900+ | No.<br>of<br>Obs. | Mean R.A.<br>1905-0.         | Annual<br>Precession,<br>1905 0, | Secular<br>Variation,<br>1905-0. | Annual<br>Proper<br>Motion. | Mean<br>Date.<br>1900+ | No.<br>of<br>Obs. | Mean<br>Declination,<br>1905 0. | Annual<br>Precession.<br>1905.0. | Secular<br>Variation,<br>1905.0. | Annual<br>Proper<br>Motion. | Remarks. |
| 237        | 2-3        | 6.20                   | 11                | h. m. s.<br>14 0 5.256       | s.<br>+3·5566                    | +:032                            | s.<br>0444                  | 6.20                   | 11                | 35 54 10·52                     |                                  | +-26                             | _″<br>—•525                 |          |
| A          |            | 0.71                   | 10                | ·278<br>14 5 5·934           | +3.6291                          | +.035                            |                             | 6.51                   | 10                | 38 44 13:37                     | 17·133                           | +.28                             |                             |          |
| 238<br>239 | 8.0        | 6·51<br>6·51           | 10                | 14 8 20:380                  | +3.5092                          | +.028                            |                             | 6.21                   | 10                | 31 36 6.85                      | -16·984                          | + 27                             |                             | •••      |
| 240        | 8.0        | 6.51                   | 10                | 14 11 46.969                 | +3.6915                          | +.038                            | •••                         | 6.51                   | 10                | 40 25 15.89                     | -16·822                          | +.30                             | •••                         |          |
| 241        | 9.0        | 6 51                   | 10                | 14 14 23:393                 | +3.5621                          | +.029                            |                             | 6.51                   | 10                | 33 30 26.12                     | -16.698                          | + .29                            |                             |          |
| 242        | 5.0        | 6.51                   | 10                | 14 17 10.789                 | +3.6840                          | +.036                            | 0054                        | 6.51                   | 10                | 39 04 41 38                     | -16.561                          | +.31                             | -040                        | nf       |
| A          |            |                        |                   | ·760                         |                                  | •••                              |                             |                        |                   | •41                             | •••                              |                                  |                             |          |
| 243        | 7.3        | 6.51                   | 10                | 14 20 47 162                 | +3.5693                          | +.028                            |                             | 6.51                   | 10                | 32 49 18.51                     | 16.381                           | +.30                             |                             |          |
| 244        | 8.0        | 6.51                   | 10                | 14 23 44.756                 | +3.6553                          | + 032                            |                             | 6.51                   | 10                | 36 36 51.62                     | -16.230                          | +.32                             |                             |          |
| 245        | 90         | 6.51                   | 9                 | 14 27 54.234                 | +3.6533                          | +.031                            |                             | 6.21                   | 10                | 35 51 1.36                      | -16.012                          | +.33                             |                             |          |
| 246        | 6.0        | 6.21                   | 10                | 14 30 46 071                 | +3.7532                          | +.036                            |                             | 6.21                   | 10                | 39 47 47.89                     | -15.863                          | +.34                             |                             |          |
| 247        | 8.2        | 6.21                   | 10                | 14 33 55.102                 | +3.7255                          | +.033                            |                             | 6.51                   | 10                | 38 08 29.74                     | 15.993                           | +.34                             |                             | F        |
| 248        | 4-5        | 6.21                   | 10                | 14 37 50 632                 | +3.6621                          | +.030                            | - 0067                      | 6.51                   | 10                | 34 45 53.70                     | -15.476                          | +.35                             | -194                        |          |
| A          |            |                        |                   | .605                         |                                  |                                  | •••                         |                        |                   | .63                             |                                  |                                  |                             |          |
| 249        | 6.5        | 6.52                   | 10                | 14 41 7:372                  | +3.7449                          | +.033                            | •••                         | 6.52                   | 10                | 37 53 22.62                     | —15·293                          | +.36                             |                             |          |
| 250        | 9.2        | 6.52                   | 10                | 14 43 57.484                 | +3.8144                          | +.036                            | •••                         | 6.52                   | 10                | 40 14 43.91                     | —15·132                          | +.36                             |                             |          |
| 251        | 8·5<br>6·0 | 6.52                   | 10<br>10          | 14 46 45 906<br>14 49 54 667 | +4.6198<br>+3.6692               | +·026<br>+·028                   | +.0017                      | 6.52                   | 10                | 31 37 9·85<br>33 28 13·01       | 14·969<br>14·784                 | +.35                             | —·012                       |          |
| 252<br>A   |            |                        |                   | 676                          |                                  |                                  |                             |                        |                   | 16                              |                                  |                                  |                             |          |
| 253        | 8.8        | 6.52                   | 10                | 14 53 18 413                 | +3.6490                          | +:026                            |                             | 6.52                   | 10                | 32 09 33.02                     | 14·583                           | +:37                             |                             |          |
| 254        | 9.0        | 6.53                   | 10                | 14 57 26.841                 | +3.7108                          | +.028                            |                             | 6.53                   | 10                | 34 20 16.22                     | -14.331                          | +.39                             |                             | nf       |
| 255        | 8.5        | 6.53                   | 11                | 15 0 21.815                  | +3.7362                          | +.029                            |                             | 6.53                   | 11                | 35 2 13.84                      | -14·152                          | +.39                             |                             |          |
| 256        | 8.5        | 6.23                   | 11                | 15 4 10.070                  | +3.7765                          | +.030                            |                             | 6.53                   | 11                | 36 11 41.09                     | -13.915                          | +.40                             |                             |          |
| 257        | 8.5        | 6.36                   | 10                | 15 7 16.702                  | +3.7046                          | +.027                            |                             | 6.36                   | 10                | 32 58 5.91                      | —13.717                          | +.39                             |                             |          |
| 258        | 8.0        | 6.36                   | 10                | 15 11 13·690                 | +3.7461                          | +.027                            |                             | 6.36                   | 10                | 34 13 35.59                     | -13:463                          | +'41                             |                             |          |
| 259        | 4-3        | 6.36                   | 10                | 15 15 46.486                 | +3.8024                          | +.029                            | 0088                        | 6.36                   | 10                | 35 55 1.13                      | —13·167                          | +.42                             | 091                         |          |
| A          |            |                        |                   | ·485                         |                                  |                                  |                             |                        | •••               | •42                             |                                  | •••                              | •••                         |          |
| 260        | 7.8        | 6.36                   | 10                | 15 19 10.386                 | +3.7058                          | +.024                            |                             | 6.36                   | 10                | 31 49 10:36                     | -12.941                          | +.41                             |                             |          |
| 261        | 7.8        | 6.29                   | 11                | 15 22 5.245                  | +3.7479                          | ·+·026                           |                             | 6.29                   | 11                | 33 12 47.97                     | -12.745                          | +.43                             |                             |          |
| 263        | 3.0        | 6.29                   | 11                | 15 28 48 405                 | +3.9855                          | +.033                            | 0032                        | 6.29                   | 11                | 40 50 51.30                     | -12.286                          | +.46                             | <b>−</b> ·036               |          |
| A          | •••        | •••                    |                   | .365                         |                                  |                                  |                             | •••                    | •••               | .89                             | •••                              | ***                              | •••                         |          |
| 264        | 8.0        | 6.27                   | 10                | 15 33 56.055                 | +3.9238                          | +.029                            |                             | 6.27                   | 10                | 38 24 0.39                      | -11.928                          | +.46                             | •••                         |          |
| 265        | 8.8        | 6.27                   | 10                | 15 37 36 648                 | +3.8918                          | +.027                            |                             | 6.27                   | 10                | 37 0 46.85                      | -11.668                          | +.46                             | ***                         | •••      |
| 266        | 7.0        | 6.30                   | 10                | 15 41 6.248                  | +3.9908                          | +.029                            |                             | 6.27                   | 10                | 39 53 51.95                     | -11:419                          | +.48                             | •097                        |          |
| 267        | 5-4        |                        | 11                | 15 44 55:139                 | +3.8033                          | +.024                            | 0021                        | 6.30                   | 11                | 33 20 17:24                     | -11.143                          | +.46                             | 027                         | ***      |
| 268        | 6.5        | 6.30                   | 11                | 15 50 15·069                 | + 3.7639                         | + .022                           | •••                         | 6.30                   | 11                | 31 30 29.68                     | <br>— 10·752                     | + '46                            |                             |          |
| 269        | 7.0        | 6.30                   | 11                | 15 53 17.935                 | + 3.8038                         | + .022                           |                             | 6.30                   | 11                | 32 44 23.61                     | - 10 732<br>- 10·526             | + '47                            |                             |          |
| 270        | 8.7        | 6.30                   | 10                | 15 56 34.429                 | + 3.8741                         | + .023                           |                             | 6.30                   | 10                | 34 56 29:39                     | -10.282                          | + .49                            |                             | nf of 3  |
| 271        | 5.0        | 6.30                   | 10                | 16 0 21:071                  | + 3.9311                         | + .024                           | 0032                        | 6.27                   | 11                | 36 32 38.69                     | - 9.996                          | + .50                            | 038                         |          |
| A          |            |                        |                   | .044                         |                                  |                                  |                             |                        |                   | •44                             |                                  |                                  |                             |          |
| 272        | 7.5        | 6.22                   | 11                | 16 3 48.518                  | + 3.9025                         | + '024                           |                             | 6.22                   | 11                | 35 23 24.50                     | - 9.734                          | + .50                            |                             |          |
| 273        | 8.0        | 6.19                   | 10                | 16 8 13.197                  | + 4.0404                         | + .026                           |                             | 6.19                   | 10                | 39 20 41.61                     | - 9.394                          | + .52                            |                             | np       |
| 274        | 7.5        | 6.28                   | 10                | 16 11 25 954                 | + 3.9856                         | + .024                           |                             | 6.28                   | 10                | 37 31 2.66                      | - 9.145                          | + .52                            |                             |          |
| 275        | 8.5        | 6.38                   | 10                | 16 15 5.110                  | + 3.8082                         | + .019                           |                             | 6.38                   | 10                | 31 32 5.76                      | - 8.860                          | + .20                            |                             |          |
| 276        | 6.0        | 6.31                   | 11                | 16 17 35 028                 | + 4 0 1 7 4                      | + '024                           | + '0042                     | 6.31                   | 11                | 38 58 16 54                     | - 8.663                          | + .54                            | - 019                       |          |
| A          |            |                        |                   | .046                         |                                  |                                  |                             |                        |                   | •58                             |                                  | ••-                              |                             |          |
| 277        | 90         | 6.31                   | 10                | 16 22 19 587                 | + 4.1066                         | + .023                           |                             | 6.31                   | 10                | 40 21 33.14                     | - 8·288                          | + '54                            |                             |          |
| 278        | 5-4        | 6.31                   | 10                | 16 25 10 302                 | + 3.9134                         | + .019                           | 0049                        | 6.31                   | 10                | 34 29 52 03                     | — 8·060                          | + '53                            | — ·026                      |          |

10

| No.         | Mag. | Meau<br>Date.<br>1900+ | No. of Obs. | Mean R.A.<br>1905-0.           | Aunual<br>Precession.<br>1905.0. | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Mean<br>Date.<br>1900+ | No.<br>of<br>Obs. | Mean<br>Declination.<br>1905.0. | Annual<br>Precession.<br>1905.0. | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Remarks. |
|-------------|------|------------------------|-------------|--------------------------------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------------|---------------------------------|----------------------------------|----------------------------------|-----------------------------|----------|
| 020         |      | 0.01                   |             | h. m. s.                       | 8.                               | 8.                               | 8.                          | (2.01                  | 10                | 0 / "                           | "                                | "                                | "                           |          |
| 278A<br>279 | 5-4  | 6.31                   | 10          | 16 25 10·242<br>16 29 12·663   | + 3.9134                         | + .019                           | - '0049                     | 6:31                   | 10                | 34 29 52:16                     | - 8·060                          | + '53                            | - 026                       |          |
| 280         | 8.0  | 6.31                   | 10          | 16 32 14 036                   | + 3·8922<br>+ 3·8514             | + .018                           | •••                         | 6.31                   | 10                | 33 37 2·16<br>32 8 33·01        | - 7:736<br>- 7:490               | + ·52<br>+ ·52                   | •••                         |          |
| 281         | 7.0  | 6.20                   | 10          | 16 36 7:478                    | + 4.0093                         | + .010                           |                             | 6.20                   | 10                | 36 53 40 68                     | - 7·174                          | + 54                             |                             |          |
| 282         | 8.8  | 6.10                   | 10          | 16 40 19 255                   | + 3.9727                         | + .012                           |                             | 6.10                   | 10                | 35 37 12.24                     | - 6 830                          | + .55                            | •••                         | nF       |
| 283         | 4.0  | 5.80                   | 6           | 16 45 53.940                   | + 4.0574                         | + .018                           | 0030                        | 5.80                   | 6                 | 37 51 21.98                     | — 6·369                          | + .56                            | 033                         | nf       |
| A           |      |                        |             | .943                           |                                  |                                  |                             |                        |                   | •4.4                            |                                  |                                  |                             |          |
| 284         | 7.5  | 5.92                   | 10          | 16 48 38 139                   | + 4.0757                         | + .017                           |                             | 5.92                   | 10                | 38 15 29.08                     | - 6.142                          | + '57                            |                             |          |
| 285         | 7.8  | 5.95                   | 9           | 16 52 23.934                   | + 4.1088                         | + .017                           |                             | 5.97                   | 11                | 39 1 19.45                      | <b>—</b> 5·827                   | + .28                            |                             |          |
| 286         | 6-5  | 6.03                   | 12          | 16 55 43.930                   | + 3.8751                         | + .013                           | 0037                        | 6.03                   | 12                | 32 0 9.73                       | - 5.548                          | + .54                            | - 073                       |          |
| A           |      |                        |             | *888                           | •••                              |                                  |                             |                        |                   | 10.35                           | •••                              |                                  |                             |          |
| 287         | 8.0  | 5.98                   | 10          | 16 58 41 077                   | + 4.1918                         | + .017                           | •••                         | 5.98                   | 11                | 40 58 20 96                     | <b>—</b> 5·299                   | + .59                            |                             |          |
| 288         | 8.8  | 5.92                   | 10          | 17 1 49.762                    | + 3.8762                         | + .012                           |                             | 5.92                   | 10                | 31 51 1.80                      | - 5.033                          | + .55                            |                             | nf       |
| 289         | 8.0  | 5.83                   | 10          | 17 6 33.555                    | + 3.9248                         | + .012                           |                             | 5.83                   | 10                | 33 14 44.72                     | — 4·633                          | + .56                            |                             |          |
| 290         | 6.0  | 5.88                   | 12          | 17 10 52.736                   | + 3.9062                         | + .011                           | 0091                        | 5.88                   | 12                | 32 33 21:38                     | <b>— 4</b> ·263                  | + .26                            | 050                         |          |
| A           |      |                        | ***         | •763                           | •••                              |                                  | •••                         | •••                    |                   | •20                             |                                  |                                  |                             |          |
| 291         | 8.2  | 5.73                   | 10          | 17 15 26.522                   | + 3.9993                         | + .011                           | • • •                       | 5.73                   | 10                | 35 15 8.86                      | — 3·874                          | + .26                            |                             |          |
| 292         | 6.2  | 5.73                   | 10          | 17 18 44:081                   | + 3.9798                         | + .010                           |                             | 5.73                   | 10                | 34 36 29 24                     | - 3.590                          | + .57                            |                             | nf       |
| 293         | 3-4  | 5.73                   | 10          | 17 24 18 203                   | + 4.0754                         | + .009                           | 0030                        | 5.73                   | 10                | 37 13 13:42                     | — 3·110                          | + .59                            | 038                         | ***      |
| A           | 0.e  | F.MO                   | 11          | 17 97 54.709                   | 4.0570                           |                                  | •••                         | r.#0                   |                   | .47                             | 0.707                            | 1 .50                            | ***                         |          |
| 294         | 8.2  | 5·73<br>5·73           | 11 10       | 17 27 54:768                   | + 4.0572                         | + .008                           | •••                         | 5.73                   | 11                | 36 39 6 81                      | — 2·797                          | + .60                            |                             |          |
| 295<br>296  | 3-2  | 5.75                   | 9           | 17 30 20·930  <br>17 35 54·851 | + 4·1708<br>+ 4·1480             | + .008                           | —·0022                      | 5.73                   | 10                | 39 36 27·87<br>38 58 52·75      | - 2·586<br>- 2·103               | + .60                            | 026                         |          |
| A           |      |                        |             | 861                            |                                  |                                  |                             |                        |                   | -88                             |                                  |                                  |                             | •••      |
| 297         | 3-4  | 5.89                   | 12          | 17 40 56:353                   | + 4.1936                         | + .006                           |                             | 5.89                   | 12                | 40 5 25.91                      | — 1·666                          | + .61                            | 002                         | •••      |
| A           |      |                        |             | *329                           |                                  |                                  |                             |                        |                   | .82                             |                                  |                                  |                             |          |
| 298         | 8.0  | 6.00                   | 11          | 17 44 48 910                   | 4- 3-9372                        | + .002                           | •••                         | 5.94                   | 10                | 32 57 42 38                     | — 1·327                          | + .57                            |                             | sF       |
| . 299       | 8.0  | 5.84                   | 10          | 17 49 23:179                   | + 3.9047                         | + .003                           | •••                         | 5.84                   | 10                | 31 56 20.39                     | - 0.928                          | + '57                            |                             | nf of 3  |
| 300         | 8.0  | 5.91                   | 11          | 17 53 40 605                   | + 3.9534                         | + .003                           | •••                         | 5.88                   | 10                | 33 24 3.48                      | - 0·552                          | + '58                            |                             |          |
| 301         | 8.3  | 6.01                   | 11          | 17 57 6.896                    | + 4.0029                         | + .002                           | ***                         | 6.04                   | * 10              | 34 50 48 91                     | - 0.252                          | + .58                            |                             |          |
| 302         | 8.0  | 5.95                   | 10          | 18 0 1.954                     | + 3.9860                         | + .002                           |                             | 5.95                   | 10                | 34 19 21.16                     | + 0.003                          | + .28                            | ***                         |          |
| 303         | 8.0  | 5.92                   | 11          | 18 4 0.445                     | + 4.0882                         | + .001                           |                             | 5.92                   | 11                | 37 14 24 09                     | + 0.350                          | + .59                            |                             |          |
| 304         | 7.3  | 5.95                   | 10          | 18 7 34:256                    | + 4.1326                         | .000                             |                             | 5.95                   | 10                | 38 26 11 95                     | + 0.662                          | + .60                            |                             | sf       |
| 305         | 3-4  | 6.01                   | 14          | 18 11 11 881                   | + 4.0707                         | 001                              | - 0124                      | 6.01                   | 14                | 36 47 26 23                     | + 0.979                          | + .29                            | 163                         |          |
| A           | •••  | •••                    |             | 904                            | •••                              | • • •                            | •••                         |                        |                   | .01                             |                                  | •••                              | •••                         |          |
| 306         | 7.2  | 5.84                   | 11          | 18 14 39 777                   | + 4.1549                         | <b>-</b> ·001                    |                             | 5.84                   | 11                | 39 3 45.53                      | + 1.282                          | + .60                            |                             |          |
| 307         | 2-3  | 6.02                   | 14          | 18 17 51 952                   | + 3.9858                         | 002                              | 0037                        | 5.97                   | 13                | 34 25 47 38                     | + 1.561                          | + :58                            | - 127                       | sf       |
| A           |      |                        |             | 975                            |                                  | •••                              | •••                         |                        |                   | .41                             |                                  |                                  |                             |          |
| 308         | 7.5  | 6.03                   | 11          | 18 20 54:675                   | + 3.8858                         | 003                              | •••                         | 6.03                   | 11                | 31 25 39.57                     | + 1.827                          | + '56                            | •••                         |          |
| 309         | 9.0  | 5.94                   | 11          | 18 24 45 190                   | + 4.1994                         | 002                              | •••                         | 5.99                   | 12                | 40 18 7.56                      | + 2.161                          | + .60                            | •••                         | sf       |
| 310         | 5.8  | 5.99                   | 12          | 18 27 43·805<br>18 31 3·837    | + 3.9369                         | 004                              |                             | 5.99                   | 12                | 33 5 13 62                      | + 2.420                          | + .56                            | •••                         | sp       |
| 311         | 8.5  | 5.89                   | 9           | 18 31 3 837                    | + 3.9221                         | -·004                            | •••                         | 5.89                   | 9                 | 32 41 7·77<br>35 14 38·01       | + 2.709                          | + '56                            | •••                         | sF       |
| 312         | 5-6  | 6.10                   | 14          | 18 37 15 924                   | + 4.0064                         | ·005<br>·007                     | ·0029                       | 6.07                   | 9                 | 38 24 54.07                     | + 2.960 + 3.245                  | + .57                            | - '053                      | sp       |
| A .         |      |                        |             | 886                            | + 41100                          | 007                              |                             |                        |                   | *45                             | + 0 2 40                         | T 00                             | - 000                       |          |
| 314         | 6.7  | 5.94                   | 11          | 18 41 6.094                    | + 4.1959                         | - 009                            | •••                         | 5.94                   | 11                | 40 30 27:16                     | + 3.576                          | + .59                            | ***                         | •••      |
| 315         | 8.0  | 6.02                   | 11          | 18 44 5.098                    | + 4.0583                         | 007                              |                             | 6.02                   | 11                | 36 55 23.76                     | + 3.832                          | + .57                            |                             |          |
| 316         | 8.0  | 6.15                   | 10          | 18 48 3.627                    | + 4.1569                         | 010                              |                             | 6.15                   | 10                | 39 40 45 28                     | + 4.174                          | + .59                            |                             | sf       |
| 317         | 5-6  | 6.12                   | 13          | 18 52 18 893                   | + 4.0617                         | 010                              | - 0154                      | 6.12                   | 13                | 37 13 53 84                     | + 4.536                          | + .58                            | - 102                       |          |
| A           |      |                        |             | .862                           | •••                              | 200                              |                             |                        |                   | .88                             |                                  |                                  |                             |          |

11

| No.   Mag.   Date   D | -   | 1     |       | (   |              |             |               |           | 1     |         | 1            |             |            | ,                                       |          |
|--|-----|-------|-------|-----|--------------|-------------|---------------|-----------|-------|---------|--------------|-------------|------------|---|----------|
| 318 80 605 10 18 56 16417 + 38537 - 008  | No. | Mag.  | Date. | of  |              | Precession. | Variation.    | Proper    | Date. | of      | Declination. | Precession. | Variation. | Annual<br>Proper<br>Motion.             | Bemarks. |
| 318 S0 605 10 18 56 16617  |     |       |       |     | h. m. s.     | 8.          | 8.            | 8.        |       |         | 0 / //       | "           | "          | "                                       |          |
| 320  | 318 | 8.0   | 6.05  | 10  |              |             |               |           | 6.05  | 10      | 31 4 22.8    | 7 + 4.874   | + .54      | ***                                     |          |
| A  | 319 | 8.2   | 5.94  | 11  | 18 59 13.634 | + 3.8972    | 009           | •••       | 5.94  | 11      | 32 32 58-8   | 7 + 5.123   | + .54      |   |          |
| 321   80   598   10   19   6   14-213   3-9114   -011     5-98   10   33   13   14-14   5-713   5-54     322   80   6-12   9   19   9   2-331   3-9480   -012     6-09   10   34-27   2-41   5-947   5-64     323   6-60   6-02   9   19   13   22-316   3-9896   -013     5-99   10   35   35   40-33   5-308   5-75     324   4-0   6-11   14   19   17   18-311   4-4-1690   -017   +-0011   6-00   15   40   47   42-19   4-6-634   +-57     A   | 320 | 4.0   | 6.09  | 12  | 19 3 0.603   | + 4.0793    | —·012         | + .0023   | 6.09  | 12      | 38 3 10.2    | 8 + 5.443   | + .57      | 111                                     |          |
| 322 80 612 9 19 19 2331 +39480 -012 609 10 34 27 241 +5947 +54 333 60 602 9 19 13 22316 +39805 -013 509 10 35 35 4033 +6308 +55 324 40 611 14 19 17 18311 +41000 -017 +0011 609 15 40 47 4219 +6634 +57  A   | A   |       | •••   |     | .580         |             | •••           |           |       |         | •1           | 8           | •••        |   |          |
| 323   60   602   0   19   13   22   316   +3   9805   -0   13     590   10   35   35   40   33   +6   308   +55   584   40   611   14   19   17   18   311   +4   1600   -0   17   +0   011   60   9   15   40   47   42   19   +6   6034   +57   18   18   18   18   18   18   18   1   | 321 | 8.0   | 5.98  | 10  | 19 6 14.213  | + 3.9114    | 011           |           | 5.98  | 10      | 33 13 14 1   | 4 + 5.713   | + '54      |   |          |
| 324         4°0         6°11         14         19 17 18 311         + 4′1600         — 017         + °001         6°09         15         40 47 42 19         + 6°634         + 5°7           A <th< td=""><td>322</td><td>8.0</td><td>6.12</td><td>9</td><td>19 9 2.331</td><td>+ 3.9480</td><td>—·012</td><td></td><td>6.09</td><td>10</td><td>34 27 2.4</td><td>1 + 5.947</td><td>+ .54</td><td></td><td>sp</td></th<>   | 322 | 8.0   | 6.12  | 9   | 19 9 2.331   | + 3.9480    | —·012         |           | 6.09  | 10      | 34 27 2.4    | 1 + 5.947   | + .54      |   | sp       |
| A  |     | 6.0   | 6.02  | 9   | 19 13 22.316 | + 3.9805    | 013           |           | 5 99  | 10      | 35 35 40 3   | 3 + 6.308   | + 55       |   |          |
| 325   90   004   9   19 21   13 721   + 3 9919   -014     604   9   36 15 41 02   + 6 957   + 54     326   85   591   10   19 24   16 364   + 4 0540   -016     591   10   38 12   11 33   + 7 206   + 54     327   85   604   9   19 27 34 170   + 4 0030   -016     601   10   37   4   603   + 7 474   + 153     328   80   594   9   19 30   42 634   + 4 1055   -019     592   10   30 57   11 17   + 7 729   + 54     329   77   594   9   19 33   59781   + 3 8382   -014     592   10   31 49   33 54   + 7 903   + 50     331   5-6   604   12   19 39   57 593   + 3 8335   -015   -0029   602   13   32 8   17 33   8 8469   + 50     332   88   602   10   19 44   6102   + 3 9103   -017     600       333   80   592   10   19 47   54 809   + 3 9452   -019     592   10   34 54   8 26   + 8 795   + 50     333   79   592   10   19 50   27 494   + 3 9766   -021     592   10   31 53   5642   + 9094   + 50     334   79   592   10   19 53   33 248   + 3 9122   -020   -0018   606   12   35 32   095   + 530   + 50     335   4-5   600   11   19 53   33 248   + 3 9122   -020   -0018   606   12   35 32   095   + 530   + 50     336   50   582   10   19 47   14 853   + 3 9866   -023               336   50   582   10   19 57   14 853   + 3 9866   -023     583   9   38 12   13 93   + 9 814   + 50     338   80   614   10   20   5 5442   + 40286   -023     583   9   38 12   13 93   + 9 814   + 50     338   80   614   10   20   5 14 411   + 3 7725   -018     614   10   31 68 3864   + 10 442   + 46     340   78   607   9   20 10   5 1317   + 3 9090   -019     618   9   33 1   3 923   + 10 647   + 46     342   70   586   8   20 16   5 691   + 3 8600   -023     584   10   35 40   49 43   + 11 175   + 46     343   75   575   9   20 20   5 8517   + 3 8673   -029     575   10   34 6   566   + 11 1767   + 46     345   875   576   10   20 44   2145   + 3 7561   -023     575   10   34 6   566   + 11 1767   + 46     346   875   576   10   20 44   2145   + 3 7561   -023  | 324 | 4.0   | 6.11  | 14  | 19 17 18:311 | + 4.1609    | —·017         | + .0011   | 6.09  | 15      | 40 47 42.1   | 9 + 6.634   | + .57      | - 120                                   |          |
| 326         8.5         5.91         10         19 24 16 364         + 40540         - 016          5.91         10         38 12 11 33         + 7206         + 54           327         8.5         6.94         9         19 27 34 170         + 40033         - 016          6.01         10         37 4 603         + 7474         + 53           328         8.0         5.94         9         19 33 56781         + 38332         - 014          5.92         10         314 9 354         + 7793         + 50           320         7.7         594         9         19 33 56781         + 38332         - 014          592         10         314 9 354         + 7993         + 50           331         5-6         604         12         19 39 57593         + 38335   | A   |       | •••   |     |              |             | •••           |           |       | •••     | 41.9         | 7           | •••        |   |          |
| 327 85 604 9 19 27 34170 + 4+0003 — -016 601 10 37 4 603 + 7+474 + +53 328 80 594 9 19 30 42-634 + 4+1055 — -019 592 10 30 67 11+17 + 7729 + +54 329 77 594 9 19 37 13-027 + 3+800 — -015 592 10 33 52 12-91 + 8-250 + +51 331 5-6 604 12 19 39 57-593 + 3-8335 — -015 — -0029 6-02 13 32 8 17-33 + 8-469 + +50 332 86 602 10 19 44 6162 + 3-9103 — -017 6-02 10 34 54 8-26 + 8-795 + +50 333 80 5-92 10 19 47 54-809 + 3-9452 — -019 5-92 10 33 613 56-42 + 9-004 + -50 334 7-9 5-92 10 19 50 27-404 + 3-9766 — -021 5-92 10 37 21 28-13 + 9-291 + +51 335 4-5 6-00 11 19 53 33-248 + 3-9122 — -020 — -0018 6-06 12 35-32 0- 905 + 9-530 + -50 336 50 582 10 19 57 14-853 + 3-9896 — -023 5-83 9 38 12 13-93 + 9-814 + -50 337 86 604 10 20 0 55-442 + 4-0286 — -025 6-04 10 39 37 31-03 + 10-092 + -51 338 80 614 10 20 4 14-411 + 3-7725 — -018 6-14 10 31-93 8-9 4-9-814 + -46 339 87 608 9 20 6 59-027 + 3-8114 — -019 6-18 9 33 1 39-23 + 10-647 + -46 340 7-8 6-07 9 20 10 5-317 + 3-999 — -019 5-94 10 34 52 55-98 + 11-075 + -46 341 8-8 5-96 9 20 14 93-66 + 3-8600 — -023 5-84 10 35-60 49-43 + 11-275 + -46 343 7-5 575 9 20 20 58-517 + 3-8673 — -023 5-84 10 35-60 49-43 + 11-275 + -46 344 8-8 575 7 20 23 35-040 + 4-0034 — -029 5-76 10 36 3 36-66 + 11-567 + -46 345 8-5 585 9 20 20 12 20 3 46-758 + 3-8903 — -026 6-05 11 30 44 12-51 + 11-753 + -46 346 70 606 13 20 34 22-343 + 3-7710 — -023 5-75 10 36 3 36-66 + 11-567 + -46 349 8-5 575 10 20 41 23-112 + 3-7041 — -021 5-75 11 31 48 8-63 + 12-504 + -42 349 8-5 575 10 20 41 23-112 + 3-7041 — -021 5-75 11 31 48 8-63 + 12-504 + -42 349 8-5 575 10 20 41 23-112 + 3-7041 — -021 5-75 11 31 48 8-63 + 12-504 + -42 349 8-5 575 10 20 41 23-112 + 3-7041 — -021 5-75 11 31 48 8-63 + 12-504 + -42 340 8-5 576 10 20 44 21-45 + 3-7561 — -023 5-76 11 30 44 17-5 1-12-76 + -44 349 8-5 576 10 20 44 21-45 + 3-7561 — -023 5-76 11 32 4 16-79 + 13-714 + -48 349 8-5 576 10 20 44 21-45 + 3-7561 — -023 5-76 11 32 4 16-79 + 13-714 + -48 340 8-5 576 10   | 325 | 9.0   | 6.04  | 9   | 19 21 13.721 | + 3.9919    | 014           | - · · · · | 6.04  | . 9     | 36 15 41.0   | 2 + 6.957   | + .54      |   | nf       |
| 328   80   594   9   19   30   42   634   +4   1055   -019     592   10   39   57   11   17   +7   729   +54   329   77   594   9   19   33   59   57   594   9   19   33   59   57   594   9   19   37   13   3027   +3   8900   -015     592   10   31   49   33   54   +7   993   +55   331   5-6   604   12   19   39   57   593   +3   8935   -015   -0029   602   13   32   81   733   +8   499   +50  | 326 | 8.5   | 5.91  | 10  | 19 24 16.364 | + 4.0540    | <b>—</b> .016 |           | 5.91  | 10      | 38 12 11:3   | 3 + 7.206   | + .54      |   | sf       |
| 329 77 594 9 19 33 59781 + 38332 - 014 592 10 31 49 33·54 + 7·993 + ·50 330 70 594 9 19 77 13·027 + 3·8900 - 015 592 10 33 52 12·91 + 8·250 + ·51 331 5-6 604 12 19 39 57·593 + 3·8335 - 015 - 0029 602 13 32 8 17·33 + 8·469 + ·50  A   |     | 8.5   |       |     |              | + 4.0093    | —·016         |           | 6.01  | 10      | 37 4 6.0     | 3 + 7.474   | + .53      |   |          |
| 330 7-0 5-94 9 19 37 13-027 + 3-89000.15 5-92 10 33 52 12-91 + 8-250 + -51  331 5-6 6-04 12 19 39 57-593 + 3-83350.150.029 6-02 13 32 8 17-33 + 8-469 + -50  A   | 328 |       |       |     |              | + 4.1055    | —·019         |           | 5.92  | 10      | 39 57 11.1   | 7 + 7.729   | + .54      |   |          |
| 331         5-6         604         12         19 39 57593         + 38335         - 015         - 0029         602         13         32 8 1733         + 8499         + 50           A <td>329</td> <td></td> <td>5.94</td> <td></td> <td></td> <td>+ 3.8332</td> <td>—·014</td> <td></td> <td>5.92</td> <td>10</td> <td>31 49 33 8</td> <td>4 + 7.993</td> <td>+ .50</td> <td></td> <td>np of 3</td>  | 329 |       | 5.94  |     |              | + 3.8332    | —·014         |           | 5.92  | 10      | 31 49 33 8   | 4 + 7.993   | + .50      |   | np of 3  |
| A  |     | - 7.0 | 5.94  | 9   | 19 37 13:027 | + 3.8900    | —·015         |           | 5.92  | 10      | 33 52 12.9   | + 8-250     | + .21      |   |          |
| 332 88 6·02 10 19 44 6·162 +3·9103 — ·017 6·02 10 34 54 8·26 +8·795 + ·50 333 8·0 5·92 10 19 47 54·899 +3·9452 — ·019 5·92 10 36 13 56·42 +9·094 + ·50 334 7·9 5·92 10 19 50 27·494 +3·9766 — ·021 5·92 10 37 21 28·13 +9·201 + ·51 335 4-5 6·00 11 19 53 33·248 +3·9122 — ·020 — ·0018 6·06 12 35 32 0·95 + ·6·530 + ·50  A   | 331 | 5-6   | 6.04  | 12  | 19 39 57:593 | + 3.8335    | - 015         | 0029      | 6.02  | 13      | 32 8 17:3    | 3 + 8.469   | + .20      | 035                                     |          |
| 333 8-0 5-92 10 19 47 54-869   | A   |       | •••   |     | .588         |             | •••           | •••       |       | •••     | •            | 0           | •••        |   |          |
| 334 7.9 5.92 10 19 50 27.404   | 332 | 8.8   | 6.02  | 10  | 19 44 6.162  | + 3.9103    | <b>−</b> ·017 | •••       | 6.02  | 10      | 34 54 8.2    | 6 + 8.795   | + .50      |   |          |
| 335  | 333 |       | 5.92  | 10  | 19 47 54.869 | + 3.9452    | —·019         |           | 5.92  | 10      | 36 13 56.4   |             | + .50      | •••                                     |          |
| A  | -   |       |       |     |              | + 3.9766    | 021           |           | 5.92  | 10      | 37 21 28 1   |             | + .21      |   |          |
| 336 5·0 5·82 10 19 57 14·853   | 335 | 4-5   | 6.00  | 11  | 19 53 33.248 | + 3.9122    | 020           | 0018      | 6.06  | 12      | 35 32 0.9    | + 9-530     | + .50      | 038                                     |          |
| 337 8-6 6-04 10 20 0 55-442 + 4-0286025 6-04 10 39 37 31-03 + 10-092 + -51 338 8-0 6-14 10 20 4 14-411 + 3-7725018 6-14 10 31 26 38-54 + 10-342 + -46 339 8-7 6-08 9 20 6 59-027 + 3-8114019 6-18 9 33 1 39-23 + 10-547 + -46 340 7-8 6-07 9 20 10 51-317 + 3-7999019 6-07 9 32 54 10-7 + 10-837 + -46 341 6-8 5-96 9 20 14 9-366 + 3-8491021 5-94 10 34 52 55-98 + 11-075 + -46 342 7-0 5-86 8 20 16 53-691 + 3-8660023 5-84 10 35 40 49-43 + 11-275 + -46 343 7-5 5-75 9 20 20 58-517 + 3-8673023 5-75 10 36 3 36-66 + 11-567 + -46 344 8-8 5-75 7 20 23 35-040 + 4-0034029 5-75 9 40 41 25-51 + 11-753 + -46 345 8-5 5-85 9 20 26 17-201 + 3-8864024 5-84 10 37 10 30-13 + 11-944 + -45 346a 7-0 6-02 12 20 30 46-758 + 3-8903026 6-05 13 37 42 57-68 + 12-258 + -44 347 6-0 6-06 13 20 34 22-343 + 3-7710023 0000 6-01 15 33 46 526 + 12-504 + -42 A   | A   |       |       | ••• |              |             |               |           |       | ***     | •            | 1           |            |   |          |
| 338 80 614 10 20 4 14·411 + 3·7725 - ··018 6·14 10 31 26 38·54 + 10·342 + ·46 339 8·7 6·08 9 20 6 59·027 + 3·8114 - ··019 6·18 9 33 1 39·23 + 10·647 + ·46 340 7·8 6·07 9 20 10 51·317 + 3·7999 - ··019 6·07 9 32 54 1·07 + 10·837 + ·46 341 6·8 5·96 9 20 14 9·366 + 3·8491 - ··021 5·94 10 34 52 55·98 + 11·075 + ·46 343 7·5 5·75 9 20 20 58·517 + 3·8660 - ·023 5·84 10 35 40 49·43 + 11·275 + ·46 344 8·8 5·75 7 20 23 35·040 + 4·0034 - ·029 5·75 10 36 3 36·66 + 11·567 + ·46 345 8·5 5·85 9 20 26 17·201 + 3·864 - ·024 5·84 10 37 10 30·13 + 11·944 + ·45 346a 7·0 6·02 12 20 30 46·758 + 3·8903 - ·026 6·05 13 37 42 57·68 + 12·258 + ·44 347 6·0 6·06 13 20 34 22·343 + 3·7710 - ·023 0000 6·01 15 33 43 5·26 + 12·504 + ·42 A  |     |       |       |     | 19 57 14.853 | + 3.9896    | 023           |           | 5.83  | 9       | 38 12 13.9   | 3 + 9.814   | + .20      |   |          |
| 339       87       608       9       20       6       59027       +38114       -019        6:18       9       33       1       3923       +10:647       +46         340       7.8       6:07       9       20       10       51:317       +3:7999       -019        6:07       9       32       54       1:07       +10:637       +46         341       6:8       5:96       9       20       14       9366       +3:8491       -021        5:94       10       34       52       5:98       +11:075       +46         343       7:5       5:75       9       20       20       58:517       +3:8673       -023        5:75       10       36       3       3:666       +11:567       +46         344       8:8       5:75       7       20       23       3:5040       +4:034       -029        5:75       9       40:41       25:51       +11:753       +46         345       8:5       5:85       9       20:26       17:201       +3:8864       -024        5:84       10       37:10       30:13       +11:44       +45   | 337 | 8.6   | 6.04  | 10  | 20 0 55.442  | + 4.0286    | <b>—</b> ·025 |           | 6.04  | 10      | 39 37 31.0   | 3 + 10.092  | + .21      |   | np       |
| 340       7·8       6·07       9       20 10 54·317       + 3·7999       — ·019        6·07       9       32 54 1·07       + 10·837       + ·46         341       6·8       5·96       9       20 14 9·366       + 3·8491       — ·021        5·94       10       34 52 55·98       + 11·075       + ·46         342       7·0       5·86       8       20 16 53·691       + 3·8660       — ·023        5·84       10       35 40 40·43       + 11·275       + ·46         343       7·5       5·75       9       20 20 58·517       + 3·8673       — ·023        5·75       10       36 3 36·66       + 11·275       + ·46         344       8·8       5·75       7       20 23 35·040       + 4·0034       — ·029        5·75       9       40 41 25·51       + 11·753       + ·46         345       8·5       5·85       9       20 26 17·201       + 3·8864       — ·024        5·84       10       37 10 30·13       + 11·944       + ·45         346a       7·0       6·02       12       20 30 46·758       + 3·8903       — ·026        6·05       13       37 42 57·68       + 1  |     |       |       |     | 20 4 14:411  | + 3.7725    | 018           |           | 6.14  | 10      | 31 26 38-8   | 4 + 10.342  | + .46      |   |          |
| 341       6·8       5·96       9       20 14       9·366       + 3·8491       — ·021        5·94       10       34 5·2 5·98       + 11·075       + ·46         342       7·0       5·86       8       20 16       53·691       + 3·8660       — ·023        5·84       10       35 40       49·43       + 11·275       + ·46         343       7·5       5·75       9       20 20       58·517       + 3·8673       — ·023        5·75       10       36 3       36·66       + 11·567       + ·46         344       8·8       5·75       7       20 23       35·040       + 4·0034       — ·029        5·75       9       40 41       25·51       + 11·567       + ·46         345       8·5       5·85       9       20 26       17·201       + 3·8864       — ·024        5·84       10       37 10       30·13       + 11·944       + ·46         346a       7·0       6·02       12       20 30       46·758       + 3·8903       — ·026        6·05       13       37 42       5·768       + 12·258       + ·44         347       6·0       6·06       13   | 339 |       |       |     | 20 6 59.027  | + 3.8114    | 019           |           | 6.18  | 9       | 33 1 39.2    | 3 + 10.547  | + '46      | • |          |
| 342       7·0       5·86       8       20 16 53·691       + 3·8660       — 023        5·84       10       35 40 49·43       + 11·275       + ·46         343       7·5       5·75       9       20 20 58·517       + 3·8673       — 023        5·75       10       36 3 36·66       + 11·567       + ·46         344       8·8       5·75       7       20 23 35·040       + 4·0034       — 029        5·75       9       40 41 25·51       + 11·567       + ·46         345       8·5       5·85       9       20 26 17·201       + 3·8864       — 024        5·84       10       37 10 30·13       + 11·944       + 4·5         346a       7·0       6·02       12       20 30 46·758       + 3·8903       — 026        6·05       13       37 42 57·68       + 12·258       + ·44         347       6·0       6·06       13       20 34 22·343       + 3·7710       — 023       0000       6·01       15       33 46 526       + 12·504       + 42         A               6·14   | 340 |       |       |     | 20 10 51:317 | + 3.7999    | 019           |           | 6.07  | 9       | 32 54 10     | 7 + 10.837  | + '46      |   | nP       |
| 343       7.5       5.75       9       20 20 58:517       + 3:8673      023        5.75       10       36 3 36:66       + 11:567       + .46         344       8:8       5.75       7       20 23 35:040       + 4:0034      029        5:75       9       40 41 25:51       + 11:753       + .46         345       8:5       5:85       9       20 26 17:201       + 3:8864      024        5:84       10       37 10 30:13       + 11:944       + .45         346a       7:0       6:02       12       20 30 46:758       + 3:8903      026        6:05       13       37 42 57:68       + 12:258       + .44         347       6:0       6:06       13       20 34 22:343       + 3:7710      023       .0000       6:01       15       33 46 5:26       + 12:504       + .42         A   |     |       |       |     |              | + 3.8491    | 021           |           | 5.94  | 10      | 34 52 55.9   | 8 + 11.075  | + '46      |   |          |
| 344       8·8       5·75       7       20 23 35·040       + 4·0034       - ·029        5·75       9       40 41 25·51       + 11·753       + ·46         345       8·5       5·85       9       20 26 17·201       + 3·8864       - ·024        5·84       10       37 10 30·13       + 11·944       + ·45         346a       7·0       6·02       12       20 30 46·758       + 3·8903       - ·026        6·05       13       37 42 57·68       + 12·258       + ·44         347       6·0       6·06       13       20 34 22·343       + 3·7710       - ·023       ·0000       6·01       15       33 46 5·26       + 12·504       + ·42         A  |     |       |       |     | 20 16 53.691 | + 3.8660    | 023           | •••       | 5.84  | 10      | 35 40 49.4   | 3 + 11.275  | + '46      |   |          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | 343 |       | 5.75  |     | 20 20 58 517 | + 3.8673    | <b>−</b> ·023 |           | 5.75  | 10      | 36 3 36-6    | 66 + 11.567 | + '46      | •••                                     |          |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  |     |       |       |     |              | + 4.0034    | - 029         | •••       | 5.75  | 9       | 40 41 25     | 1 + 11.753  | + .46      |   |          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   |     |       |       |     |              |             | - 024         |           |       | 10      | 37 10 30 1   | 3 + 11.944  | + .45      |   |          |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | 1   | 7.0   | 6.02  | 12  | 20 30 46.758 | + 3.8903    | 026           |           | 6.05  | 13      | 37 42 57.6   | 8 + 12.258  | +:44       |   | sp       |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | -   | 6.0   | 6.06  | 13  | 20 34 22:343 | + 3.7710    | <b>-</b> ·023 | .0000     | 6.01  | 15      | 33 46 5.2    | 6 + 12.504  | + .42      | .000                                    |          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   |     |       |       |     | .361         |             | •••           | =         |       | • • • • | 6.1          | 4           |            |   |          |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$   |     |       |       | 10  | 20 38 39·129 | + 3.9328    | <b>—</b> ·029 |           | 5.76  | 11      | 39 54 14.7   | 5 + 12.795  | + .44      |   |          |
| 351       6-5       5·97       14       20 47 29·409       + 3·9125       - ·031       ·0000       6·00       16       40 9 56·42       + 13·380       + ·42         A   |     |       |       | 10  | 20 41 23.112 | + 3.7041    | <b>-</b> ·021 |           | 5.75  | 11      | 31 48 8.5    | 3 + 12.978  | + .40      |   |          |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  |     |       | 5.75  | 10  |              | + 3.7561    | 023           |           | 5.75  | 10      | 34 7 53.7    | 9 + 13.154  | + '41      |   |          |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | 351 | 6-5   | 5.97  | 14  | 20 47 29 409 | + 3.9125    | —·031         | .0000     | 6.00  | 16      | 40 9 56-4    | 2 + 13.380  | + .42      | - 107                                   |          |
| 353 5·0 6·00 15 20 55 27·943 + 3·6894 - ·023 - ·0017 5·99 16 32 37 45·85 + 13·892 + ·38<br>A   |     |       |       | ••• | .398         | •••         | •••           |           |       |         | A === .7     | 9           |            |   |          |
| A  |     | -     | 6.07  | 10  |              | + 3.6833    | <b>−</b> ·022 |           | 6.04  | 11      | 32 4 16.7    | 9 + 13.714  | + .38      |   | sp       |
| 354 8·5 5·76 12 20 58 12·313 + 3·7690 - ·027 5·76 12 36 10 32·99 + 14·063 + ·38  | 353 | 5.0   | 6.00  | 15  | 20 55 27 943 | + 3.6894    | 023           | 0017      | 5.99  | 16      | 32 37 45.8   | 5 + 13.892  | + .38      | . 000                                   |          |
| 1  |     |       |       |     |              |             | •••           |           |       |         | .,           | 8           |            |   |          |
| 354a   7.0   5.76   12   21   0   30.086   + 3.7330   -0.26     5.76   12   35   0   29.77   + 14.206   + .38  |     |       |       |     |              |             | <b>—</b> ·027 |           | 5.76  | 12      | 36 10 32-9   | 9 + 14.063  | + .38      |   | F        |
| 00 00 11 1200 1 00   |     |       |       |     |              | + 3.7330    | 026           |           | 5.76  | 12      |              | 7 + 14.206  | + .38      |   |          |
| 355 7.6 5.76 9 21 2 42.059 + 3.7923029 5.76 9 37 37 34.00 + 14.341 + .39   |     |       |       |     |              | + 3.7923    | 029           |           | 5.76  | 9       | 37 37 34 0   | 0 + 14.341  | + .39      |   | nf       |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  |     |       |       |     |              | + 3.8056    | 030           |           | 5.76  | 12      | 38 33 44.4   | 6 + 14.545  | + .38      |   |          |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$   |     |       |       |     |              | + 3.8578    | 033           |           | 5.76  | 12      |              |             | + :37      |   |          |
| 358   5·0   5·99   16   21 12 10·786   + 3·6432   - ·024   + ·0029   5·99   16   32 34 11·23   + 14·908   + ·35  |     | 5.0   | 5.99  | 16  |              | + 3.6432    | 024           | + .0029   | 5.99  | 16      | 32 34 11.2   | 3 + 14.908  | + '35      | 030                                     |          |
| A  | A   | •••   | •••   | ••• | .771         |             |               |           |       |         | •2           | 0           |            |   |          |

12

| No.       | Mag, | Mean<br>Date.<br>1900+ | No.<br>of<br>Oba. | Mean R.A.<br>1905-0.                    | Annual<br>Precession.<br>1905.0. | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Mean<br>Date.<br>1900+ | No. of Obs. | Mean<br>Declination.<br>1905.0. | Annual<br>Precession.<br>1905.0. | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Remarks. |
|-----------|------|------------------------|-------------------|---|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------|---------------------------------|----------------------------------|----------------------------------|-----------------------------|----------|
| 359       | 5.0  | 5.84                   | 14                | h. m. s.<br>21 14 41·187                | 8.<br>+ 3.8454                   | s.<br>— '034                     | + ·0065                     | 5.83                   | 15          | 41 12 40.85                     | + 15.053                         | + .36                            | + '010                      |          |
| A<br>359a | 8.0  | 5.76                   | 12                | 21 17 22:883                            | 1 2:41000                        |                                  |                             | *.F0                   | 10          | 55                              | 15,900                           |                                  | ***                         | ***      |
| 360       | 8.5  | 5.76                   | 12                | 21 19 44.561                            | + 3.6002                         | - ·023<br>- ·032                 | •••                         | 5.76                   | 12          | 31 13 13·21<br>39 37 19·86      | + 15:208<br>+ 15:341             | + .33                            | ***                         | sf       |
| 361       | 6.5  | 5.76                   | 12                | 21 23 23:315                            | + 3.5927                         | —·023                            |                             | 5.76                   | 12          | 31 39 9.92                      | + 15.545                         | + '32                            | •••                         | 1        |
| 362       | 9.0  | 5.76                   | 11                | 21 26 15:372                            | + 3.6265                         | 025                              |                             | 5.76                   | 11          | 33 41 47.93                     | + 15.702                         | + .33                            |                             |          |
| 363       | 6.5  | 5.76                   | 11                | 21 29 28.895                            | + 3.6386                         | 026                              |                             | 5.76                   | 11          | 34 44 59.14                     | + 15.876                         | + .32                            |                             |          |
| 364       | 8.6  | 5.76                   | 11                | 21 32 15.070                            | + 3.6371                         | 027                              |                             | 5.76                   | 10          | 35 6 20.27                      | + 16 022                         | + '31                            |                             |          |
| 365       | 7.0  | 5.76                   | 10                | 21 35 '33.620                           | + 3.6451                         | 028                              |                             | 5.76                   | 10          | 36 0 59.12                      | + 16.195                         | + .30                            |                             |          |
| 366       | 5.0  | 5.92                   | 13                | 21 39 17:445                            | + 3.5814                         | 026                              | + .0013                     | 5.91                   | 14          | 33 27 34.22                     | + 16.385                         | + .29                            | 094                         |          |
| A         |      |                        |                   | ·404                                    |                                  |                                  |                             |                        |             | .02                             | j                                |                                  |                             |          |
| 367       | 7.0  | 5.77                   | 8                 | 21 41 47.186                            | + 3.6731                         | 031                              | •••                         | 5.77                   | 10          | 38 23 27.73                     | + 16.510                         | + .30                            |                             |          |
| 368       | 8.0  | 5.78                   | 10                | 21 44 15.838                            | + 3.6778                         | 032                              | •••                         | 5.78                   | 10          | 39 3 10.05                      | + 16.632                         | + .30                            |                             |          |
| 369       | 3.0  | 5.80                   | 12                | 21 48 10.762                            | + 3.6366                         | —·031                            | + .0071                     | 5.80                   | 12          | 37 48 43.43                     | + 16 821                         | + '28                            | - 023                       |          |
| A         | •••  | •••                    |                   | ·713                                    |                                  | U                                | •••                         |                        |             | 42.88                           | •••                              |                                  |                             |          |
| 370       | 8.0  | 5.78                   | 10                | 21 52 25.465                            | + 3.6780                         | 034                              |                             | 5.78                   | 10          | 40 36 45.57                     | + 17.019                         | + .28                            | •••                         | •••      |
| 370a      | 7.0  | 5.78                   | 10                | 21 55 18.761                            | + 3.5940                         | 030                              |                             | 5.78                   | 10          | 37 0 40.28                      | + 17.152                         | + '26                            |                             |          |
| 371       | 6.8  | 5.80                   | 9                 | 21 57 0.802                             | + 3.5093                         | 025                              |                             | 5.80                   | 10          | 32 35 31.91                     | + 17.228                         | + .26                            | ***                         | • • • •  |
| 372       | 5-4  | 6.00                   | 15                | 22 0 23.479                             | + 3.6316                         | —·034                            | 0030                        | 6.00                   | 15          | 40 0 6.45                       | + 17:377                         | + '26                            | —·114                       |          |
| A 9772    | 5-4  | 6.04                   | 9                 | •530                                    |                                  |                                  |                             |                        |             | 7.07                            |                                  |                                  |                             |          |
| 373<br>A  |      |                        |                   | 22 2 50.576                             | + 3.5044                         | 026                              | + .0036                     | 6.04                   | 9           | 33 27 8:44                      | + 17.484                         | + '24                            | 046                         | •••      |
| 374       | 6.8  | 6.22                   | 10                | ·532<br>22 6 4·886                      | + 3.5176                         | ***                              | •••                         |                        |             | •21                             | 1 17,000                         |                                  | •••                         |          |
| 375       | 8.6  | 6.11                   | 10                | 22 9 12:301                             | + 3.4481                         | — ·027<br>— ·023                 | •••                         | 6.22                   | 10          | 34 55 57·53<br>31 9 15·77       | + 17·620<br>+ 17·749             | + '24                            | •••                         |          |
| 376       | 8.3  | 6.22                   | 10                | 22 12 46.738                            | + 3.4952                         | - ·027                           | •••                         | 6.22                   | 9           | 35 2 31.65                      | + 17 749                         | + .22                            | •••                         |          |
| 377       | 8.0  | 6.20                   | 10                | 22 16 4.062                             | + 3.5044                         | - 028                            | •••                         | 6.20                   | 11          | 36 24 53.88                     | + 18:020                         | + '21                            |                             | sF       |
| 378       | 8.3  | 5.91                   | 10                | 22 19 6.466                             | + 3.5287                         | 032                              |                             | 5-93                   | 9           | 38 41 30.40                     | + 18.134                         | + .22                            |                             |          |
| 379       | 6-5  | 6.12                   | 13                | 22 23 5.242                             | + 3.5264                         |                                  | + .0019                     | 6.13                   | 13          | 39 36 45.59                     | + 18.280                         | + .20                            | 166                         | sf       |
| A         |      |                        |                   | • |                                  |                                  |                             |                        |             | ·45                             |                                  |                                  |                             |          |
| 380       | 8.0  | 6.09                   | 11                | 22 26 7.030                             | + 3.5266                         | 033                              |                             | 6.09                   | 11          | 40 27 57.70                     | + 18:387                         | + .20                            | •••                         |          |
| 381       | 8.8  | 6.16                   | 12                | 22 29 13.142                            | + 3.4743                         | 030                              |                             | 6.16                   | 12          | 37 55 36.27                     | + 18:494                         | + .19                            | •••                         |          |
| 382       | 6.0  | 6.16                   | 12                | 22 33 29.549                            | + 3.3994                         | —·025                            | + .0000                     | 613                    | 13          | 33 34 32.88                     | + 18.635                         | + .18                            | + .050                      |          |
| A         |      |                        |                   | •541                                    | •••                              | •••                              |                             |                        |             | .51                             |                                  |                                  |                             |          |
| 383       | 8.5  | 6.03                   | 10                | 22 37 7.133                             | + 3.3583                         | <b>—</b> ·022                    |                             | 6.03                   | 10          | 31 8 49.90                      | + 18.749                         | + .17                            |                             | nf of 3  |
| 384       | 8.3  | 6.13                   | 10                | 22 40 14.797                            | + 3.3641                         | <b>— ·023</b>                    |                             | .6.16                  | 9           | 32 36 20 56                     | + 18.845                         | + .16                            |                             |          |
| 384a      | 8.5  | 6.05                   | 9                 | 22 42 41.848                            | + 3.4213                         | 029                              |                             | 6.05                   | 9           | 38 15 28.61                     | + 18:917                         | + .16                            |                             |          |
| 385       | 6.0  | 6.13                   | 13                | 22 45 37.811                            | + 3.4258                         | —·031                            | .0000                       | 6.08                   | 12          | 39 39 35.61                     | + 19:000                         | + '15                            | 002                         | •••      |
| A         |      | 0.10                   |                   | *849                                    | •••                              | •••                              |                             |                        |             | -86                             |                                  |                                  |                             |          |
| 386       | 9.0  | 6.13                   | 10                | 22 49 17:289                            | + 3.3575                         | <b>—</b> ·025                    | •••                         | 6.13                   | 10          | 35 4 12.41                      | + 19.099                         | + .15                            |                             | -173     |
| 387       | 8.3  | 6:10                   | 10                | 22 52 17.750                            | + 3.3391                         | - 024                            | •••                         | 6.13                   | 10          | 34 25 25 21                     | + 19:178                         | + .13                            | •••                         | 8F       |
| 388       | 8.0  | 6.10                   | 11                | 22 55 42 664                            | + 3.3602                         | —·028                            |                             | 6.10                   | 11          | 37 52 9.67                      | + 19:262                         | + .13                            | 1 1.94                      | •••      |
| 390       | 9.0  | 6.20                   | 10 8              | 22 59 44·673<br>23 3 22·522             | + 3.3286                         | - 027                            | + .260                      | 6.23                   | 10          | 36 24 0.20                      | + 19:357                         | + '12                            | + 1.26                      | sf       |
| 390a      | 8.8  | 6.16                   | 9                 | 23 5 22.450                             | + 3·3312<br>+ 3·3127             | - ·028<br>- ·027                 |                             | 6:27                   | 9           | 38 20 58·29<br>37 16 45·56      | + 19.437                         | + '11                            |                             |          |
| 391       | 9.0  | 6.24                   | 10                | 23 7 33.790                             | + 3.3269                         | 027                              | •••                         | 6.16                   | 9           | 37 16 45·56<br>40 0 16·06       | + 19.524                         | + '11                            | ***                         | •••      |
| 392       | 8.3  | 6.17                   | 9                 | 23 10 50.644                            | + 3.3093                         | - 029                            | •••                         | 6.24                   | 10          | 39 47 11:93                     | + 19 524                         | + .10                            | •••                         |          |
| 393       | 4-5  | 6.16                   | 12                | 23 13 41.749                            | + 3.2470                         |                                  | + .0006                     | 6.16                   | 12          | 33 2 58:39                      | + 19:638                         | + 09                             | —·073                       |          |
| A         |      |                        |                   | .751                                    | T 0 2 1 7 0                      | 022                              |                             |                        |             | .79                             |                                  |                                  |                             |          |
| 393a      | 8.0  | 5.94                   | 8                 | 23 16 13:435                            | + 3.2256                         | 019                              | •••                         | 5.94                   | 8           | 31 5 58.32                      | + 19:681                         | + .09                            |                             |          |
| 394       | 8.5  | 5.94                   | 10                | 23 17 58:258                            | + 3.2196                         | —·019                            |                             | 5.94                   | 10          | 31 7 10.13                      | + 19.710                         | + .08                            |                             |          |

13

| No.  | Mag. | Mean<br>Date.<br>1900+ | No. of Obs. | Mean 1 1905    |        | Annual<br>Precession.<br>1905.0. | Secular<br>Variation.<br>1905.0. | Annual<br>Proper<br>Motion. | Mean<br>Date.<br>1900+ | No. of Obs. | Mea<br>Declina<br>1905 | tion.       | Annual<br>Precession.<br>1905.0. | Secular<br>Variation,<br>1905.0. | Annual<br>Proper<br>Motion. | Remarks. |
|------|------|------------------------|-------------|----------------|--------|----------------------------------|----------------------------------|-----------------------------|------------------------|-------------|------------------------|-------------|----------------------------------|----------------------------------|-----------------------------|----------|
| 395  | 8.5  | 5.94                   | 10          | h. m.<br>23 20 | S.     | S.                               | s.<br>— ·020                     | s.                          | 5.94                   | 10          | 0 /                    | //<br>45.00 | " 10/759                         | "                                | "                           |          |
|      |      |                        |             |                | 45.824 | + 3.2178                         |                                  |                             |                        |             | 32 32                  | 45.63       | + 19.753                         | + .08                            |                             |          |
| 395a | 6.5  | 6.05                   | 9           | 23 22          | 54.811 | + 3.2293                         | 024                              |                             | 6.05                   | 9           | 36 4                   | 3.05        | + 19.784                         | + .07                            |                             |          |
| 396  | 9.0  | 6.03                   | 10          | 23 25          | 10.349 | + 3.2188                         | - 024                            |                             | 6.03                   | 10          | 35 51                  | 39.48       | + 19.815                         | + .07                            |                             |          |
| 397  | 5.0  | 6.07                   | 13          | 23 27          | 52.685 | + 3.2202                         | <b>026</b>                       | + .0061                     | 6.07                   | 13          | 38 20                  | 37.04       | + 19.850                         | + .06                            | + .009                      |          |
| A    |      |                        |             |                | .721   |                                  |                                  |                             |                        |             |                        | .41         |                                  |                                  |                             |          |
| 398  | 8.2  | 5.84                   | 10          | 23 31          | 54.176 | + 3.1864                         | 022                              |                             | 5.84                   | 10          | 34 52                  | 31.66       | + 19.896                         | + .05                            |                             | nf       |
| 399  | 5-6  | 5.88                   | 12          | 23 35          | 39.078 | + 3.1632                         | 020                              | 0138                        | 5.93                   | 11          | 32 35                  | 54.18       | + 19.933                         | + .04                            | 039                         |          |
| A    |      |                        |             |                | .003   |                                  |                                  |                             |                        |             |                        | .63         |                                  |                                  |                             |          |
| 400  | 9.0  | 5.94                   | 10          | 23 39          | 8.366  | + 3.1633                         | 023                              |                             | 5.94                   | 10          | 36 46                  | 28.29       | + 19.963                         | + .04                            |                             |          |
| 401  | 9.0  | 5.85                   | 10          | 23 42          | 55.535 | + 3.1493                         | 023                              |                             | 5.85                   | 11          | 37 38                  | 52.42       | + 19.990                         | + .03                            |                             |          |
| 402  | 9.0  | 5.85                   | 10          | 23 45          | 52.263 | + 3.1415                         | <b>−</b> ·025                    |                             | 5.85                   | 13          | 39 56                  | 3.89        | + 20.008                         | + .02                            |                             |          |
| 403  | 6.0  | 5.85                   | 12          | 23 49          | 39.767 | + 3.1246                         | 025                              |                             | 5.85                   | 12          | 40 49                  | 46.29       | + 20.026                         | + .01                            |                             |          |
| 404  | 7.0  | 5.85                   | 13          | 23 53          | 4.818  | + 3.1058                         | 023                              |                             | 5.85                   | 13          | 39 29                  | 0.65        | + 20.037                         | .00                              |                             |          |
| 405  | 7.0  | 5.85                   | 13          | 23 57          | 3.125  | + 3.0859                         | —·021                            |                             | 5.85                   | 13          | 37 45                  | 28.35       | + 20.044                         | .00                              |                             |          |
| 406  | 8.5  | 5.85                   | 12          | 23 59          | 22.732 | + 3.0750                         | 019                              |                             | 5.85                   | 13          | 34 56                  | 35.37       | + 20.046                         | 01                               |                             |          |

### UNIVERSITY OF CALIFORNIA LIBRARY BERKELEY

Return to desk from which borrowed.

This book is DUE on the last date stamped below.

FEB 2 1953

ASTRONOMY LIBRARY

LD 21-100m-7,'52 (A2528s16)476



